

PLANTAE PAPUANAE ARCHBOLDIANAE, XVII*

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THIS ARTICLE contains the remaining genera of the Psychotriaceae not considered in previous papers. It includes *Psychotria*, *Calycosia*, *Cephaelis*, *Lasianthus*, *Saprosma*, and *Amaracarpus*, as well as we can determine them without more material for comparison. Of all the Rubiaceae dealt with in this series of papers, these genera are by far the most difficult to delimit. In some instances the variation of single characters is so constant that it is most troublesome to decide whether this is of generic significance or not. For example, we have placed in *Saprosma* only those plants characterized by stiff or bristle-like elongated glands(?) on the stipules or bracts of the inflorescence; yet, the specimen which we have described under *Calycosia* has a few fairly long and widely scattered callose teeth (or glands?) on the margins of the exceedingly large stipules. These teeth or glands are not on the margins of the bracts, but within at the base is a row of rather large colleters. However, the habit of the plant is much more like that of *Calycosia*, and on account of its agreement in other characters we have placed it there at least for the present. After hastily scanning the definitions of *Psychotria* in the literature from various parts of the world, we have been somewhat puzzled to know what to include or to exclude as border species, hence we began our study with those plants which would be recognized universally as *Psychotria* (including *Grumileca*), and worked toward the periphery of the genus. There are bound to be borderline species which some might place in this genus and others in closely related ones. In such instances we have endeavored to adhere to the generic concepts used by Valetton in this area, believing that he had available much more material for comparison than we, although we have not located any publication in which he defined the genera. One species from the Solomon Islands we have placed in *Cephaelis*, although we are not unaware of a tendency to separate the Old and the New World genera of this type. The decision in such matters should rest with those workers who consider the group in its entirety and not on the basis of material from a small geographic area. As for *Amaracarpus* and the genus *Dolianthus* C. H. Wright, we have given a fairly detailed discussion of our position at the beginning of our treatment of the former genus.

RUBIACEAE (concluded)

Psychotria Linnaeus (including *Grumileca* Gaertner)

In the Papuanian region are three species of *Psychotria* with pre-empted specific names: *P. ixorioides* Val., non Bartl. ex DC.; *P. polyneura* Val.,

* Botanical results of the Richard Archbold Expeditions. See Jour. Arnold Arb. 26: 229-266, 1945.

non DC.; and *P. puberula* K. Schum. non Wright. These do not appear to be represented in our material.

Psychotria carstensensis Wernham, Trans. Linn. Soc. II. Bot. 9: 75. 1916, vel aff.

BRITISH NEW GUINEA: Mount Tafa, Brass 4857, Aug., 1933, alt. 2400 m., very common, conspicuous in tree tops (large liane; dark glabrous leaves, shining above, midrib white; peduncle, pedicels and corolla white; calyx and ovary green; fruit yellow-green, about 6 × 5 mm.).

It seems best at present to place this collection here until it can be compared with the type. It does not wholly agree with the original description, in which the leaves are described as obovate but later in the comment designated as ovate. In the Brass collection the leaves are slightly smaller and the petioles a little shorter; on the two specimens at hand only one stipule and remnants of two others are present; the stipule is lanceolate, hairy inside, but broken at the apex, it is only 1.3 cm. long and 4 mm. wide; the inflorescence is apparently sessile; the corolla-tube is 4.5 mm. long and densely short-villose within the upper half; the fruit is slightly sulcate, and the albumen strongly ruminant.

Psychotria Leonardii nom. nov.

Psychotria Brassii S. Moore, Jour. Bot. 65: 268. 1927, non Hiern (1877).

In naming this species, Moore apparently overlooked the fact that another species had already received the specific epithet *Brassii*; in order to preserve the original intention of the author, we have used a specific epithet based on the collector's given name.

Psychotria olivacea Val. Bot. Jahrb. 61: 77. 1927.

BRITISH NEW GUINEA: Palmer River, 2 miles below junction Black River, Brass 7341, July, 1936, alt. 100 m., large liana of forest canopy (leaf-nerves prominent above, less so below; flowers yellow outside, red within). SOLOMON ISLANDS: Bougainville: Siwai, Waterhouse 64, Jan., 1933 (vine used in Taro cultivation); Torge-galla, Kajewski 1783 bis, 2194, May and September, 1930, alt. 150 m. and 40 m., vine climbing up rain-forest trees (petals light green-brown; fruit white when ripe, 7-8 mm. long, 8-9 mm. diameter); Pour-gor-kucki, Kajewski 1884, June, 1930, alt. 150 m. rain-forest (vine; petals dirty green; fruit 7 mm. long, 5 mm. diameter, white-green when ripe); Guadalcanal: Uulolo, Tutuve, Kajewski 2520, April, 1931, alt. 1200 m., rain-forest (fruit cream-colored when ripe, 8 mm. long, 5 mm. diameter); San Cristoval: Waimamura, Brass 2677, Aug., 1932, lowland rain-forests, common (large glabrous fleshy liane; flowers pale brown; fruit smooth, immature).

These specimens so strongly resemble each other that in spite of their wide geographic range we have placed them together for the present at least. Likewise, they correspond very well with the description of Valetton's *Psychotria olivacea*. However, in our herbarium is a specimen from Australia labeled *P. coclospermum* F. M. Bailey, lacking flowers and fruit, but which, in foliar characters, type of inflorescence, and bracts, so strongly resembles the Papuan material above cited that it seems possible these may all be representatives of the same species. We have not yet located a description of the flowers of the Australian species. Further study with more complete material is necessary to determine relationship of these specimens.

Psychotria barbatiloba sp. nov.

Planta scandens; ramulis ultimis glabris subteretibus vel obtuse angulatis; stipulis 2 cm. longis, lineari-lanceolatis, obtusiusculis, cito caducis, cicatricibus glabrescentibus; foliis 5-7 cm. longis, 2.5-4 cm. latis, apice probabiliter recurvis in sicco plerumque plicatis, acuminatis, basi obtuse cuneatis, chartaceis, utrinque glabris, nervis lateralibus utrinsecus 7-10 oblique adscendentibus, venis inconspicuis; petiolo 1-1.5 cm. longo; inflorescentiis sessilibus, trichotomis 4-6 (-10 in fructu) cm. latis, 4-6 cm. longis, breviter patenti-pubescentibus, multifloris, bracteatis; bracteis minutis triangularibus interdum apice subulatis, pubescentibus; floribus in apice ramorum brevium dense confertis subsessilibus; calyce 1 mm. longo, glabro, dentato, minute ciliolato; corolla extus minute pubescente, tubo 1.5 mm. longo intus fauce dense barbato infra glabro, lobis 5 linearibus, intus parte inferiore dense barbatis, 2-2.5 mm. longis; staminibus in fauce insertis, filamentis 1 mm. longis, antheris 1 mm. longis; stylo 3 mm. longo, glabro, stigmatibus 0.5 mm. longis, patentibus, exsertis; fructibus vix maturis, ovoideis, apice calyce coronatis, ± 4 mm. longis, 2.5 mm. diametro, extus leviter obtuse costatis; albumine paulo ruminato.

BRITISH NEW GUINEA: Palmer River, 2 miles below junction Black River, *Brass* 7215 (TYPE), July, 1936, alt. 100 m., common in ridge forests (large canopy liane; flowers white).

The general appearance of this collection is much like that of *Psychotria sarmentosa* Blume. The latter differs in the following characters: veins not so strongly ascending; flowers less crowded; flower buds more rounded than elongate; fruits larger and less crowded; bracts and calyx more spreading.

Psychotria purpurea sp. nov.

Planta scandens, inflorescentiis minute puberulis exceptis glabra; ramis striulatis, subangulatis, internodiis circiter 2 cm. longis; stipulis non visis, cicatricibus intus minute pubescentibus; foliis lanceolato-ellipticis, apice acuminatis, acumine ± 1 cm. longo, acuto, basi cuneatis, subcoriaceis, nervis lateralibus utrinsecus 6 vel 7 utrinque aequaliter manifestis, venis obscuris; petiolo circiter 1 cm. longo, gracili; inflorescentiis a basi ramosis, puberulis, 7 cm. latis, 4.5 cm. longis, cymoso-paniculatis; ramis divaricatis, tenuibus, bracteatis; bracteis lanceolatis, 2 mm. vel minus longis; floribus 1.5 mm. pedicellatis; calyce brevissimo, patenti, glabro, 4-5-angulato; corolla in alabastro tantum visa, dense puberula cinerea, intus fauce barbata; antheris probabiliter exsertis, in alabastro 1 mm. longis; fructibus glabris, subglobosis, 4 mm. diametro, immaturis.

SOLOMON ISLANDS: San Cristoval: Hinuahaoro, *Brass* 2874 (TYPE), Sept., 1932, alt. 900 m., mountain rain-forests, common (small climber; leaves thick, shining; flower white; fruit smooth, purple).

This species suggests *P. sarmentosa* Bl. but is smaller in all its parts, and the leaves are much more acuminate. Both flowers and fruits seem to be stung by insects.

Psychotria orgyalis sp. nov.

Planta scandens circiter 2 m. alta, inflorescentiis minute leviter pulverulentis exceptis glabra; ramis ultimis leviter angulatis vel in sicco compressis, internodiis 0.5-3 cm. longis; stipulis caducissimis in gemmis

tantum visis, 1 cm. longis, lanceolatis; foliis ovatis vel lanceolatis, 2.5-4.5 cm. longis, 1-1.8 cm. latis, basi cuneatis vel late acutis, apice acuminatis chartaceis, nervis lateralibus tenuibus utrinsecus 5-7 supra manifestis subtus prominulis, venis paucis sub lente manifestis; inflorescentiis sessilibus, 5-7 cm. longis latisque, bracteatis, bracteis linearibus, inferioribus circiter 5 mm. longis; floribus bracteolatis, sessilibus vel breviter pedicellatis, plerumque in triadibus in apice ramulorum ultimorum dispositis alabastris tantum visis, glabris; calyce 4-5-lobato; corolla utrinque glabra disco elongato quam calyce paulo longiore; fructibus ellipsoideis, 5 mm. longis, 4 mm. diametro; endocarpio crassiusculo; seminibus immaturis.

BRITISH NEW GUINEA: East Mount Tafa, *Brass 4140* (TYPE), May, 1933, alt. 2100 m., foothill forest, common (small climber forming a bushy top about 2 m. above ground; leaves rather thick, with pale midrib; inflorescence greenish yellow).

Among the species of *Psychotria* already described this collection is most like *P. Wernhamiana* S. Moore and *P. Wollastonii* Wernham. It differs from both, however, in the entirely glabrous corolla; in foliar characters it seems to be intermediate between the two mentioned species. The high disk is a feature it has in common with *P. Wernhamiana* S. Moore and *P. vaccinioides* Val., a fairly rare character among the Papuan species.

Psychotria vaccinioides Val. in Gibbs, *Phytogr. & Fl. Arfak Mts.* 181. 1917.

NETHERLANDS NEW GUINEA: 18 km. southwest of Bernhard Camp, Idenburg River *Brass 12182, 12626*, Jan., Feb., 1939, alt. 2100 and 2150 m., in shrubberies of a steep summit, and in stunted scrub on an exposed summit, mossy forest (scrambling to 1 m. leaves concave; flowers white).

For comparison we have at hand a topotype, *Kanchira & Hatusime 15657*, in which specimen the leaves show considerable variation in size, the larger being almost as large as the smaller ones of *P. Lorentzii* Val. (the latter species being represented by *Brass 9239* from Lake Habbema, and *Brass 10594* from 9 km. northeast of Lake Habbema); it is true that the habit of *P. vaccinioides* Val. is more compact than that of the related species. Another character common to all three specimens cited is a relatively long disk which does not appear in either *P. Lorentzii* Val. nor in *P. densifolia* Stapf. This disk persists in the fruit and without the aid of a hand lens looks like a rather long apiculus projecting from the apex of the fruit.

Psychotria lolokiensis S. Moore, *Jour. Bot.* 67: 49. 1929, in C. T. White, *Jour. Arnold Arb.* 10: 269. 1929.

BRITISH NEW GUINEA: Rona, Laloki River, *Brass 3671*, March, 1933, alt. 450 m., gully rain-forest associations, rare; Kanosia, *Carr 11083*, Feb., 1935, forest on edge of mangrove swamp; Daru Island, *Brass 6277*, common in rain-forest margins; Tarara, Wassi Kussa River, *Brass 8527*, tidal terraces in rain-forest and mangrove contact zone, Upper Wassi Kussa (left branch), *Brass 8639*, margin of mangroves. Slender small tree 3-7 m. high, with dark glossy leaves, white peduncles, pedicels, and flowers, fruit shining red (Carr: reddish orange), soft and fleshy, persistent calyx-tube yellow.

This rather distinctive species ought to be compared with the type of Valetton's *Psychotria bracteosa*, the type-locality of which is Merauke. If they should prove to be the same species, Valetton's name has priority. Although the descriptions are very similar, we have hesitated to make the reduction on this alone, after seeing the similarity between *P. montensis*

S. Moore and *P. micralabastra* (Lauterb. & K. Schum.) Val., species very much alike in appearance but different in minute details.

Psychotria chrysoarpa sp. nov.

Arbor usque ad 6 m. alta, glabra, vel frutex; ramis ultimis teretibus vel compressis, internodiis 1-3.5 cm. longis; stipulis 1-2 cm longis dimidio inferiore connatis, apice obtusis, margine libero subpectinato-pubescentibus, deciduis, cicatricibus pubescentibus, pilis rufis; foliis coriaceis, ellipticis, 4.5-12 cm. longis, 1.5-6 cm. latis, apice et basi breviter acutiusculis, novellis margine rufo-pubescentibus, pilis cito caducis, nervis lateralibus utrinsecus 8-12 utrinque prominulis, oblique patenti-adscedentibus prope marginem arcuatis, reticulo laxo manifesto; petiolo 1-1.8 cm. longo, supra plano, subtus convexo; inflorescentiis 5 (in fructu usque ad 10) cm. longis, 2.5-4 cm. pedunculatis, ramosis, ramis verticillatis, verticillis 3 vel 4, bracteatis, bracteis late ovatis, 2-3 mm. longis, basi \pm connatis; floribus sessilibus vel 2-4 mm. pedicellatis; calyce cupuliformi, \pm dentato, 2.5 mm. longo; corolla crassiuscula, tubo 5 mm. longo, intus sub apice staminum basin circum dense barbato, lobis 5.5 mm. longis, lanceolato-oblongis; disco haud 1 mm. longo; filamentis circiter 2 mm. longis, antheris aequilongis, exsertis; stylo 3 mm. longo, lobis stigmaticis 2 mm. longis, 1 mm. latis; fructibus pyriformibus utrinque leviter sulcatis, levibus, 7 mm. longis, 5 mm. latis, apice calyce coronatis; pyrenis 5 vel 6 mm. longis, dorso haud costatis, apice medio leviter sulcatis, ventre planis; albumine ruminato.

NETHERLANDS NEW GUINEA: 9 km. northeast of Lake Habbema. *Brass 10989* (TYPE), Oct., 1938, alt. 2650 m., common on open banks of streams (tree 3-6 m. high; flowers white; fruits orange); Bele River, 18 km. northeast of Lake Habbema, *Brass 11578*, Nov., 1938, alt. 2350 m., in a small clearing in forest (somewhat fleshy shrub 1 m. high; flowers white).

This species is very closely related to *Psychotria lolokiensis* S. Moore or *P. bracteosa* Val. The plants are of similar habit, and the leaves are very much alike in texture, shape, and venation. The mode of branching differs in the inflorescences. In *P. lolokiensis* S. Moore the peduncle is rather long, and at its apex the branches are verticillate and for the most part similar in size, so that the main axis as such is not conspicuously marked; the branches themselves are dichotomous. In *P. chrysoarpa*, on the other hand, the branches are in whorls around a main axis. In addition to this distinguishing character, *P. chrysoarpa* differs in having ovate rather than orbicular bracts, glabrous floral axis (and branches), more markedly dentate calyx; the pubescence in the upper part of the corolla-tube is just below the apex rather than projecting from the throat, and the pyrenes are rounded on the dorsal surface rather than angled as in *P. lolokiensis* S. Moore.

Psychotria sphaerothyrsa Val. Bot. Jahrb. 61: 99. 1927.

BRITISH NEW GUINEA: Sogeri, *Brass 635*, Nov., 1925, alt. about 450 m., rain-forest (tall shrub 2.5-4 m.; trunk soft and sappy; leaves glossy above).

This collection, apart from the fact that it is only in very young bud, is an excellent match for an isotype of Valetton's species which is fortunately in our herbarium. *Psychotria sphaerothyrsa* Val. was based on a

collection from Northeast New Guinea, and has previously been reported only from the type-collection.

Psychotria heterophylla sp. nov.

Frutex magnus; ramulis ultimis angulatis puberulis, internodiis 1-7 cm. longis; stipulis 1-1.3 cm. longis, puberulis, ovatis, apice breviter bi-lobatis, subpersistentibus; foliis oblongo-lanceolatis vel leviter obovato-lanceolatis vel lineari-lanceolatis, majoribus 29-33 cm. longis, 9 cm. latis, minoribus 16 × 6 cm. etiam 13-14 × 1.5 cm., tenuiter chartaceis, apice sensim longe acuminatis, acumine 1.5-3 cm. longo, angusto, basi cuneatis, supra glabris, subtus costa et nervis puberulis, nervis lateralibus in foliis majoribus utrinsecus ± 25, in minoribus utrinsecus 15-17, utrinque prominulis, venis utrinque manifestis, reticulo supra obscuro, subtus sub lente conferto manifesto; petiolo 1.3-2.5 cm. longo, puberulo, supra canaliculato et plano; infructescentia terminali puberula, probabiliter circiter 16 cm. diametro; pedunculo 5.5 cm. longo, compresso, angulato, ramulis similibus; fructibus 1.5 mm. pedicellatis, pyriformibus, subdiccis, 5 mm. longis, vix 5 mm. diametro, calyce minute ciliato coronatis; pyrenis dorso convexis, endocarpio extus ruguloso, intus subscrobiculato; albumine ruminato.

BRITISH NEW GUINEA: Ihu, Vailala River, *Brass 918* (TYPE), Feb., 1926, rain-forests (large bush; leaves dark and glossy above, pale beneath, fleshy, midrib on upper surface white; fruit red).

In several characters this species is similar to *Psychotria alata* Val. The latter species differs, however, in its complete glabrousness and the comparatively short branchlets of the inflorescence, as well as in its narrower leaf-base. Both have persistent stipules, although those of *P. heterophylla* are more or less broken and somewhat shredded, yet they are present on all nodes of the specimen; the main nerves of the leaves are similar, and both have the long narrow acumen at the tip of the leaf, but even under a lens the fine reticulation seen in the *Brass* collection is lacking in Schlechter's material. In Schlechter's collection the lower branches of the inflorescence are only 2 cm. long, whereas those of *P. heterophylla* are about 9 cm. long including the branching part which is about 6 cm. long and broad. In spite of the likeness between the two specimens it seems best to regard them as separate species at least until sufficient material has been collected to cover the differences between the two.

Psychotria Randiana sp. nov.

Frutex erectus 1-1.2 m. altus, sparsim ramosus; ramulis ultimis glabris, compressis, internodiis 1-7.5 cm. longis; stipulis oblongo-ovatis 2 cm. longis, 1 cm. latis, obtuse bi-dentatis, glabris; cicatricibus plerumque latis, intus leviter pubescentibus cito glabratis; foliis leviter obovato-ellipticis, 6.5-19 cm. longis, 2.5-8 cm. latis, apice subabrupte acuminatis, acumine obtusiusculo, 7-9 mm. longo, basi circiter 7 mm. lato, basi in petiolo angustatis, glabris, firme chartaceis, nervis lateralibus utrinsecus 8-13 supra manifestis, subtus prominulis, patentibus adscendentibus et arcuatis; venis et reticulo utrinque ± manifestis; petiolo 1-2 cm. longo; inflorescentiis (pedunculo incluso) 13-15 cm. longis, pyramidalibus, bracteatis, ramis verticillatis, puberulis, divaricatis, ultimis cymosis; bracteis linearibus apice subulatis; pedunculo 5.5-7 cm. longo; pedicellis 2-3 (in fructu

-5) mm. longis; calycis tubo circiter 1 mm. longo, lobis inaequalibus linearibus 1.5-2 (-2.5) mm. longis; corollae tubo 7 mm. longo, extus glabro, intus supra medium piloso-barbato, lobis 4 mm. longis, oblongis, glabris; antheris 2 mm. longis, inclusis, filamentis 1 mm. longis; disco 1 mm. alto; stylo 9 mm. longo, glabro; stigmatibus paulo exsertis; fructibus vix maturis ovoideis, circiter 1 cm. longis, 6 mm. diametro, calyce coronatis, non costatis; albumine ruminato.

BRITISH NEW GUINEA: Murray Pass, Wharton Range, *Brass 4607* (TYPE), July, 1933, alt. 2840 m., sporadic in forests (erect sparsely branched bush 1-1.2 m. tall; branches pale, mottled; dark smooth thick leaves, paler beneath; flowers white; soft greenish white fruit \pm 1 cm. diameter).

This species has leaves somewhat broader and fewer-nerved than those of *Psychotria nana* Val. There are also floral differences. In Valetton's species the calyx is minute; although the corolla-tube is described as equalling the lobes in length, unless the flower were approaching anthesis the proportionate length of the two would be difficult to estimate, for the tube elongates as the flower develops. In *P. Randiana* the calyx-lobes are obvious even in fruit, the flower is relatively large, and the inflorescence is fairly long-pedunculate. The species is named for Dr. A. L. Rand, the ornithologist of the expedition.

Psychotria Kanehirae sp. nov.

Planta 3 m. alta; ramulis glabris, internodiis 1-2 cm. longis, compressis; stipulis membranaceis, 1.7 cm. longis, basi circiter 8 mm. latis, ad medium bifidis, lobis lanceolatis, acutis, extus glabris, intus basi pubescentibus, caducis, cicatricibus hirtellis; foliis 10-16.5 cm. longis, 4.5-6 cm. latis, etiam 7×1.8 cm., ellipticis vel leviter oblanceolato-ellipticis, apice acuminatis, acumine 1-1.5 cm. longo, basi 7-10 mm. lato, acutiusculo, valde chartaceis vel tenuiter coriaceis, supra glabris subtus novellis costa patentibus pubescente excepta glabris, maturis glabris, nervis lateralibus utrinsecus ± 14 , oblique patentibus deinde arcuatis, reticulo sub lente supra vix manifesto, subtus obscuro; petiolo 1-2.3 cm. longo; inflorescentiis terminalibus, circiter 8 cm. longis, cymoso-paniculatis, pedunculatis (pedunculo 2 cm. longo), bracteatis, bractea basi rami imi foliiformi 1.2 cm. longa, 2 mm. lata, axilla pubescente, bracteis reliquis 2 mm. longis vel minus, linearibus; ramis plerumque oppositis, divaricatis, ramo imo 3.5 cm. longo, paniculato, summo 1.5 cm. longo, iteratim ramoso; floribus solitariis vel in triadibus in apice ramulorum ultimorum, ± 1.5 mm. pedicellatis, glabris; calyce 0.5 mm. longo, 5-dentato; corollae tubo 1 mm. longo, intus fauce barbato, lobis 1 mm. longis, obtusiusculis; antheris partim exsertis; stylo 2 mm. longo; fructibus non visis.

NETHERLANDS NEW GUINEA: Dalman, 45 km. inland from Nabire, *Kanehira & Hatusima 12248* (TYPE), Mar., 1940, alt. 500 m., margin of forest (plant 3 m.; flowers white).

In foliar characters and size of stipules this plant strongly suggests *P. ramulosa* Merr. & Perry, but the flowers are very much smaller in this plant. The stipules here are thin enough to show striations. The branches of the inflorescence are opposite, whereas in *P. ramulosa* they tend to be verticillate. It is interesting to note that the lower bract is leaf-like, though very small, and also that the axil is pubescent just as one

would expect if a stipule had fallen. Whether this indicates a sessile branching inflorescence at times we cannot say.

Psychotria luteola sp. nov.

Arbor parva 3 m. alta; ramulis ultimis glabris, internodiis 1-3 cm. longis, superioribus subangulatis vel sulcatis; stipulis in gemma terminali 5 mm. longis tantum visis, caducissimis, verisimiliter lanceolatis vel ovatis, cicatricibus primum subsuberosis deinde obsolete pubescentibus; foliis ellipticis, 10-18 cm. longis, 5.5-9.5 cm. latis, apice acuminatis, acumine \pm 1 cm. longo, acuto, basi obtusis, firme chartaceis, utrinque glabris vel subtus minute puberulis nervis lateralibus utrinsecus 10-13 supra impressis, subtus prominentibus, venis inconspicuis, reticulo sub lente densissimo, vix manifesto; petiolo 1.5-2 cm. longo; inflorescentiis sessilibus trichotomis, 12-14 cm. longis, \pm 10 cm. latis, cymoso-paniculatis, puberulis; floribus in apice ramulorum ultimorum plerumque 3, sessilibus vel exterioribus vix 1 mm. pedicellatis; calyce valde 5-dentato, calyce et ovario circiter 1 mm. longis, puberulis; corollae tubo 1.5 mm. longo utrinque glabro, lobis 1 mm. longis, extus minute puberulis; antheris 0.8 mm. longis, dimidio supero exsertis; stylo 1.5 mm. longo.

BRITISH NEW GUINEA: Mafulu, *Brass 5226* (TYPE), Oct., 1933, alt. 1250 m., undergrowth of limestone belt forests (straggling small tree 3 m. high; leaves dull; terminal panicles of small yellow flowers).

A species closely related to *P. sogerensis* Wernh. but with a flower half the size, a glabrous corolla, and definitely acuminate leaves.

Psychotria chrysantha sp. nov.

Arbor parva cicatricibus stipularum pubescentibus exceptis glabra; ramis ultimis compressis vel sulcatis, internodiis 0.5-2.5 cm. longis; stipulis caducissimis, ovatis acuminatis, in gemmis tantum visis; foliis ellipticis vel leviter obovatis, 4-10 cm. longis, 1.5-4 cm. latis, firme chartaceis, apice acuminatis, acumine 5-10 mm. longo, acutiusculo, basi cuneatis, nervis lateralibus utrinsecus 10-12 supra manifestis, subtus prominulis, patentibus prope marginem arcuatis, venis inconspicuis; petiolo 7-12 mm. longo; inflorescentiis 7-10 cm. longis, pedunculatis, pedunculo 2-4 cm. longo vel interdum nullo, cymoso-paniculatis; floribus sessilibus vel breviter pedicellatis; calyce circiter 0.5 mm. longis, plerumque 4-lobatis; corollae tubo vix 1.5 mm. longo utrinque glabro, campanulato, lobis circiter 1 mm. longis, ovatis, intus minute papillulatis; antheris in fauce insertis, apice exsertis; stylo brevi; fructibus subpyriformibus, 5 mm. longis, apice circiter 4 mm. latis; pyrenis fere levibus; albumine ruminato.

BRITISH NEW GUINEA: Mount Tafa, *Brass 4881* (TYPE), Aug. 1933, alt. 2400 m., forest substage (small tree with pale green leaves; small yellow flowers; smooth green fruits).

Psychotria chrysantha is closely related to *P. micralabastra* (Lauterb. & K. Schum.) Val. but the venation of the leaves is more spreading and prominent; the leaves also are broader and less tapering at the base in our species.

Psychotria myrsinoides sp. nov.

Frutex haud 1 m. altus; ramulis novellis minute puberulis cito glabris, internodiis 1-4 cm. longis, superioribus subsulcatis; stipulis 5-8 mm. longis, 4-6 mm. latis, ovatis, apice obtusis vel erosus vel bidentatis, extus puberulis.

intus pubescentibus, caducis; foliis 5.5–13 cm. longis, 2.5–4.5 cm. latis, tenuiter coriaceis, oblongo-lanceolatis vel elliptico-lanceolatis, apice acutis vel breviter acuminatis, basi cuneatis, nervis lateralibus utrinsecus 9–12 utrinque manifestis non prominulis, patentibus, venis obscuris, petiolo 0.5–1.5 cm. longo, puberulo; inflorescentiis paniculatis, puberulis. 6–10 cm. longis, 4–7 cm. latis, pedunculo 2–5 cm. longo, ramis oppositis vel 4-verticillatis, verticillis 4 vel 5, bracteis lanceolatis subulatis \pm 2 mm. longis; floribus in apice ramulorum ultimorum \pm confertis, extus dense puberulis, sessilibus vel breviter pedicellatis; calyce valde 5-lobato, lobis vix 1 mm. longis, ovatis, acutis; corollae tubo 3 mm. longo, intus tertio supero et fauce dense barbatis, lobis 1.5 mm. longis, oblongis; antheris 1 mm. longis, inclusis; fructibus subglobosis, \pm 4 mm. diametro; pyrenis dorso leviter 3-costatis, ventre planis; albumine ruminato.

NETHERLANDS NEW GUINEA: Hollandia, *Brass 8810* (TYPE), June, 1938, alt. 20–100 m., occasional in small forest patches on secondary savannas (fleshy shrub under 1 m. high; flowers and fruit white).

This plant suggests *P. pallida* Val. but the leaves and inflorescence are smaller, the venation of the leaves is less conspicuous, and the base is cuneate rather than rounded and abruptly constricted.

Psychotria tafaensis sp. nov.

Arbor 3–4 m. alta, fere glabra; ramulis ultimis compressis, crassiusculis, circiter 5 mm. diametro, internodiis 1–1.5 cm. longis; stipulis rotundato-oblongis, 1–1.4 cm. longis, 5–9 mm. latis, deciduis, cicatricibus novellis crassiusculis, intus dense pilosis; foliis oblongis utrinque angustatis, apice acutis, basi cuneatis, margine leviter recurvis, 5–13 cm. longis, 1.8–5 cm. latis, firme chartaceis vel subcoriaceis, nervis lateralibus utrinsecus 8–13 utrinque prominulis, patentibus, adscendentibus marginem versus arcuatis, venis inconspicuis; petiolo 1–1.3 cm. longo; inflorescentiis 7–8 cm. longis, 4.5–6 cm. latis, interdum pedunculatis (pedunculo 2.5–3 cm. longo) vel a basi ramosis, pyramidalibus, bracteatis, bracteis lanceolatis, ramulis verticillatis vel trichotomis, ramulis ultimis cum rachii summo puberulis, floribus breviter pedicellatis; calyce 5-lobato, vix 2 mm. longo, lobis ovatis; corollae tubo extus glabro, intus fauce dense barbato, 4 mm. longo, lobis oblongis, circiter 3 mm. longis; antheris inter pilos insertis, verisimiliter sessilibus, apice leviter exsertis; stylo 4 mm. longo; fructibus subglobosis, 7 mm. longis, 6 mm. diametro, leviter costatis, pyrenis transverse sectis fere semi-orbicularibus, dorso leviter trisulcatis; endocarpio subcorneo; albumine ruminato.

BRITISH NEW GUINEA: Mount Tafa, *Brass 4838* (TYPE), May–Sept., 1933, alt. 2400 m., bank of forest stream, common (small loosely branched tree 3–4 m. tall, flowers white).

Psychotria ramulosa sp. nov.

Arbor parva 2–4 m. alta valde ramosa, glabra; ramulis subteretibus, internodiis 2–4 cm. longis; stipulis magnis, late ellipticis, versus apicem angustatis, 2 cm. longis, 1.2–2 cm. latis, basi leviter angustioribus, tertio supero bifidis, intus parte inferiore pubescentibus, caducis; foliis valde chartaceis, ellipticis vel oblanceolato-ellipticis, 6.5–21.5 cm. longis, 2.2–8.5 cm. latis, apice sensim vel subabrupte acuminatis vel foliis minoribus acutis, acumine 1–1.5 cm. longo, acutiusculo, basi elongato-cuneatis, nervis lateralibus tenuibus utrinsecus 8–15 supra manifestis, subtus prominulis

venis inconspicuis vel subobscuris; petiolo 1-3 cm. longo, gracili; inflorescentiis laxè cymoso-paniculatis pyramidalibus pedunculatis (pedunculo 5-10 cm. longo), 13-27 cm. longis, 10-25 cm. latis, ramis oppositis vel 4-vel 8-verticillatis, patentissimis, bracteatis, bracteis lineari-lanceolatis, acutis; floribus in apice ramulorum ultimorum \pm 3 mm. pedicellatis; calyce vix 1 mm. longo, 4-vel 5-dentato; corollae tubo 6 mm. longo, intus tertio infimo excepto villosulo; lobis 2 mm. longis, intus minute papilloso-puberulis; staminibus in fauce insertis, antheris 1.5 mm. longis, partim exsertis; stylo glabro, 3 mm. longo; fructibus obovoideis vel pyriformibus, 6 mm. longis, 4 mm. latis, leviter sulcatis; pyrenis leviter 3-sulcatis; albumine extus paulo lobatis vix ruminatis.

NETHERLANDS NEW GUINEA: 15 km. southwest of Bernhard Camp, Idenburg River, *Brass* 12396 (TYPE), Jan., 1939, alt. 1500 m., common in undergrowth of a rain-forest ravine (much branched tree 2-4 m. high; inflorescence white; fruit green).

Possibly this species is related to *Psychotria nana* Val. The latter is described as a large herb, whereas this is a small tree with flowers on pedicels about 3 mm. long. The flowers of *P. nana* Val. were not mature and so they are hardly comparable. The stipules also are striking in the Brass specimen but are incomplete in *P. nana* Val. From the description it would seem as if Valetton's species should be recognized by the obovate-lanceolate multinerved leaves, and an inflorescence, a little longer than the leaves, bearing long-pedicellate (6 mm.) flowers.

Psychotria aquatilis sp. nov.

Frutex vel arbor parva; ramulis ultimis glabris, compressis, vix 5 mm. diametro, internodiis 2.5-6 cm. vel longioribus; stipulis circiter 1 cm. longis, connatis, apice tantum liberis, glabris, cicatricibus \pm pubescentibus; foliis 19-31 cm. longis, 4-10 cm. latis, lanceolatis, chartaceis, utrinque aequaliter angustatis, apice breviter acute acuminatis, basi breviter decurrentibus, supra glabris, subtus costa nervisque rufo-pubescentibus, nervis lateralibus utrinsecus 12-16 adscendentibus leviter arcuatis, supra impressis, subtus prominentibus, reticulo laxo utrinque distincte manifesto; petiolo 1-1.5 cm. longo, glabro; infructescentiis 5-8 cm. longis, 7-8 (fructibus inclusis) cm. latis, pedunculatis; pedunculo 0.7-1.5 cm. longo; axi et ramis minute et dense patenti-pubescentibus vel dense puberulis; ramis verticillatis, verticillis 2; fructibus pedicellatis; pedicellis 3 mm. longis, puberulis; fructibus in sicco subpyriformibus, \pm 1 cm. longis, 9 mm. latis, consperse minute pubescentibus, calyce truncato undulato leviter patenti coronatis; pyrenis 1 cm. longis, 9 mm. latis, basi cuneatis, levibus, dorso convexis basin versus compressis, ventre planis, albumine ruminato.

BRITISH NEW GUINEA: Fly River, 528 m'le Camp, *Brass* 6667 (TYPE), May, 1936, alt. 80 m., abundant on river flood banks and backwater creeks (gregarious shrub or small tree; leaves shining; short terminal panicles; fleshy red fruit \pm 1.5 cm. diameter).

Possibly this species is related to *Psychotria papuana* (Wernh.) St. John. The leaves are somewhat similar in outline but tend to be narrower than those shown in the plate of the latter species; also the veins are more ascending, the petiole is longer, and the peduncle is very much shorter than in *P. papuana*. The plants differ in other characters, noticeably the apparent lack of a calyx in the Forbes collection, but we cannot suggest at present any more closely related species.

Psychotria paludicola sp. nov.

Arbor 2-4 m. alta; ramulis ultimis glabris compressis; stipulis non visis, cicatricibus suberosis margine brunnescenti-pubescentibus; foliis firme chartaceis, ellipticis vel oblongis, 9-21 cm. longis, 4-9 cm. latis, apice subabrupte acuminatis, acumine \pm 1 cm. longo basi 7-8 mm. lato, basi late cuneatis, utrinque glabris, nervis lateralibus utrinsecus 12-14, patentiarquatis, utrinque prominulis, venis et reticulo laxo utrinque manifestis sed inconspicuis; petiolo 1-2.5 cm. longo glabro; inflorescentiis terminalibus \pm 9 cm. diametro, in fructu tantum visis; pedunculo brevi, 0.5-1.5 cm. longo, ramis 2- vel 3-ramulosis; fructibus 2-4 mm. pedicellatis, subglobosis, circiter 1 cm. diametro, calyce dentato coronatis; pyrenis circiter 7 mm. diametro, ventre planis, dorso convexis basim versus leviter compressis et late et obtuse costatis; albumine ruminato.

NETHERLANDS NEW GUINEA: 4 km. southwest of Bernhard Camp, Idenburg River, *Brass* 13637 (TYPE), March, 1939, alt. 850 m., rain-forest, abundant on banks of streams and on swampy ground (tree 2-4 m. high; fruit white, soft and fleshy).

The species is probably related to *Psychotria apiculata* Warb. The infructescence is only about half as large as in the latter species, but both are apparently without bracts; both have corky stipular scars, but in our species the upper scars all have an upper hairy margin; the leaves have fewer lateral nerves and the acumen is twice as large as in Warburg's species.

Psychotria misimensis sp. nov.

Planta glabra; ramulis teretibus, internodiis 2-2.5 cm. longis, superis tantum visis; stipulis oblongis, obtusis, 4 mm. longis, caducis, cicatricibus dense rufo-pubescentibus; foliis tenuiter coriaceis, obovatis, 5.5-9 cm. longis, 2-3.7 cm. latis, apice breviter acuminatis, acumine vix 5 mm. longo, obtuso, basi sensim attenuato-acutis, nervis lateralibus utrinsecus 8-10 utrinque distincte manifestis, patentibus deinde arcuatis, reticulo laxo inconspicuo; petiolo \pm 1 cm. longo; inflorescentiis circiter 9 cm. longis, 5 cm. latis, cymoso-paniculatis, pedunculatis (pedunculo 4.5 cm. longo), bracteatis; bracteis linearibus vel subulatis; ramis oppositis; ramulis ultimis, pedicellis, bracteis, et calycibus minute puberulis; floribus saepe in apice ramulorum ultimorum congestis; calycis tubo 0.5 mm. longo, lobis 1 mm. longis, acutis; corollae tubo 4 mm. longo, intus fauce villosulo, lobis 3 mm. longis, intus granulati-puberulis in sicco albescentibus; antheris 1.5 mm. longis, linearibus, apice tantum exsertis; stylo fere 7 mm. longo, granulati-puberulo; stigmatibus vix 1 mm. longis; fructibus non visis.

NORTHEAST NEW GUINEA: Mt. Misim, Mowlee District, *Stevens* (TYPE), 1932-33, alt. \pm 1700 m.

The distinctive characters of this species are the oblong stipules with a rounded or obtuse apex, obovate leaves, and fairly large flowers with whitened corolla-lobes.

Psychotria membranifolia Bartl. ex DC. Prodr. 4: 522. 1830; Merr. Enum. Philip. Fl. Pl. 3: 559. 1923.

BRITISH NEW GUINEA: Lower Fly River, east bank opposite Sturt Island, *Brass* 8051, Oct., 1936, rain-forest (weak sparsely foliated small tree of undergrowth; leaves rather thick and fleshy; flowers cream-colored); Penzara, between Morehead and Wassi

Kussa Rivers, *Brass 8463*, rain-forest along streams (shrub 1.5 m.; flowers yellow); Dieni, Ononge Road, *Brass 4008*, May, 1933, alt. 500 m., rain-forest floor (very small white-flowered shrub 30 cm. high); Kubuna, *Brass 5588*, Nov. 1933, alt. 100 m., rain-forest regrowths (small tree with pale glabrous shining leaves and cream-colored flowers); Veiyu, *Carr 11708, 11709*, Mar., 1935, forest (shrub about 2 m. tall; flowers pale olive below, the upper half pale flesh color); Koitaki, *Carr 12642*, June, 1935, alt. 50 m.

The above material is so much like some of the Philippine material of this species at hand that we have hesitated to consider it as new. It is true that most of the leaves are smaller here (9–20 cm. long, 3.5–8 cm. broad), the peduncle of the inflorescence is longer, and the inflorescence is much less compact, further, all the material is glabrous, but these are only minor characters when one considers the texture of the leaves, the likeness in the flowers, and some fruits; unfortunately we have only two specimens in fruit and one is immature, so it is hardly comparable.

Psychotria leiophloea sp. nov.

Arbor usque ad 7 m. alta, inflorescentiis puberulis exceptis glabra; ramulis pallidis, ultimis valde compressis, levibus, internodiis 1.5–3.5 cm. longis; stipulis elliptico-ovatis, circiter 8 mm. longis, 5 mm. latis, cito caducis, cicatricibus paulo pubescentibus; foliis ellipticis, tenuiter chartaceis, 10–21.5 cm. longis, 4–10.5 cm. latis, apice acutis vel breviter et late acuminatis, basi obtuse cuneatis, nervis lateralibus utrinsecus 10–12 utrinque perspicuis, patentibus, prope marginem valde arcuatis, venis distincte manifestis, reticulo obscuro; petiolo 1–3 cm. longo; inflorescentiis paniculatis, puberulis circiter 13 cm. diametro, pedunculo \pm 5 cm. longo, bracteatis, bracteis caducissimis haud visis; ramis 4-verticillatis; calyce puberulo 0.5 mm. longo, leviter 5-dentato; corolla extus glabra, tubo 3 mm. longo, intus dimidio supero dense barbato, lobis 1.5 mm. longis; antheris 1 mm. longis, apice vix exsertis; stylo 4.5 mm. longo; fructibus subglobosis, 5 mm. longis, 4 mm. diametro; pyrenis dorso convexis inconspicue 3-costatis ventre planis utrinque rugulosis; albumine paulo ruminato.

BRITISH NEW GUINEA: Warara, Wassi Kussa River, *Brass 8506* (TYPF), Dec., 1936, common in rain-forest semi-shade (shapely tree 6–7 m. high; bark smooth, white; leaves coriaceous, nerves pale; panicles white); Wuroi, Oriomo River, *Brass 5899*, Feb., 1934, alt. 10–30 m., common about rain-forest borders and often found on savannas (small tree or little more than a bush 2.5–4 m. high; smooth leaves with prominent yellowish nerves, stiff panicles of small red fruit).

In some respects the species reminds us of *P. micrococca* (Lauterb. & K. Schum.) Val. but in our species the corolla is glabrous outside, the bracts of the inflorescence have fallen or are very minute for there is only a hairy margin left, the flower is somewhat larger, the fruits are only inconspicuously ribbed, and the albumen is only a little ruminant.

Psychotria axilliflora sp. nov.

Arbor 10–12 m. alta; ramulis glabris, internodiis 6–12 cm. longis, superis sulcatis, cito teretibus; stipulis tantum in gemma terminali visis, parvis glabris, cicatricibus non pubescentibus; foliis 13–23 cm. longis, 5–8.5 cm. latis, chartaceis, ellipticis, apice acuminatis, acumine 1–1.5 cm. longo, obtusiusculo, basi rotundato-cuneatis vel obtusis, utrinque glabris,

nervis lateralibus utrinsecus 11-15 supra distincte manifestis, subtus prominentibus, oblique patentibus prope marginem arcuatim confluentibus, venis gracilibus, reticulo laxissimo utrinque inconspicuo; petiolo \pm 1.5 cm. longo; inflorescentiis axillaribus vel terminalibus, pedunculatis, cymoso-paniculatis, puberulis, minute bracteatis; pedunculo 3-5.5 cm. longo, gracili, ramis 1-2.5 cm. longis; floribus non visis; fructibus 1 cm. longis latisque puberulis, apice calyce truncato 1 mm. longo coronatis, in parte infera leviter dorsiventraliter compressis, basi in ambitu rotundato-cuneatis, in dimidio supero sensim vel subabrupte angustatis et subcostatis, in sectione transverse 4-angulatis; pyrenis vix 1 cm. longis latisque ventre planis, dorso convexis in dimidio supero leviter costatis (deorsum costa obscura) deinde basi valde compressis et latioribus; albumine ruminato.

SOLOMON ISLANDS: Bougainville: Koniguru, Buin, *Kajewski 2018* (TYPE), Aug., 1930, alt. 900 m., rain-forest (small tree up to 12 m. high; fruit orange colored when ripe, length 1.1 cm., diameter at base 1.2 cm. tapering to a diameter of 7 mm. at blunt point); same locality, *Kajewski 2055*, alt. 950 m., rain-forest (tree 10 m. high; fruit shiny red when ripe, 9 mm. long, 1 cm. diameter).

The leaves of this species are very much like those of *P. leptothyrsa* Miq. and *P. Schmielei* Warb. but the fruits are more nearly like those of the subgenus *Piptilema* A. Gray, described from Fiji. The dry fruits are broad and compressed basally, upward they are either gradually or subabruptly narrowed, and in cross section they are 4-angled. Of the five infructescences on the two specimens at hand, only one seems to be terminal on a short (2 cm. long) axillary branch.

Psychotria inconspicua sp. nov.

Planta vix 1 m. alta, non ramosa, glabra; internodiis apicem versus 0.5 mm. longis, subangulatis, deorsum 1-2.5 cm. longis; stipulis 1.5 mm. longis, apice rotundatis, caducis; foliis 9-11 (-19.5) cm. longis, 3.2-4 (-7) cm. latis, anguste obovatis, vel ellipticis, apice breviter acuminatis, basi sensim anguste cuneatis, tenuiter chartaceis, nervis lateralibus utrinsecus 8-10, supra impressis, subtus prominulis, venis costalibus inter nervos conspersis, supra inconspicuis, subtus distincte manifestis, reticulo laxissimo subtus perspicuo; petiolo 4 (-10) mm. longo; inflorescentiis 5.5 cm. pedunculatis, ramosis; ramis verticillatis, verticillis 3; ramis ramulosis; floribus in apice ramulorum breviter pedicellatis; calyce vix 1 mm. longo, 4-angulato; corollae tubo subcampanulato 3.5 mm. longo, fauce puberulo vel pubescente, lobis 4, ovatis, obtusis, 1.5 mm. longis; antheris circiter 1 mm. longis, partim exsertis; fructibus non visis.

BRITISH NEW GUINEA: Palmer River, 2 miles below junction Black River, *Brass 7045* (TYPE), June, 1936, alt. 100 m., sporadic in ridge-forest undergrowth (unbranched shrub less than 1 m. high; leaves somewhat iridescent; flowers white).

A species possibly related to *P. leptothyrsa* Miq. but much smaller in size of flowers and upper leaves, and with more crowded nodes.

Psychotria dieniensis sp. nov.

Frutex 50-60 cm. altus; ramulis ultimis dense pilosis, pilis leviter crispis; stipulis 1.7 cm. longis, patenti-pilosis, apice bilobatis, lobis subulato-lanceolatis circiter 7 mm. longis, caducis; cicatricibus brunnescenti-pilosis; foliis lanceolatis basi et apice aequaliter angustatis, longe subacutis, 6.5-15 cm. longis, 2-4 cm. latis, supra costa prope basim pilosa excepta glabris,

subtus minute, costa et nervis dense pilosis, nervis lateralibus utrinsecus 10–14 supra manifestis, subtus prominulis, venis subobscuris; petiolo 1.2–1.7 cm. longo, gracili, breviter piloso; infructescentiis 2.5–3.5 cm. longis latisque, prope basim ramosis, patenti-pilosis, ramis 2- vel 3-ramosis, bracteolis linearibus; fructibus rotundatis circiter 7 mm. diametro, extus leviter costatis, apice calyce consperse piloso 5-dentato 2 mm. longo coronatis, sparsissime pilosis; pyrenis 5 mm. longis, 4 mm. latis, ventre planis, dorso obtuse et inconspicue 3-costatis; albumine ruminato.

BRITISH NEW GUINEA: Dieni, Ononge Road, *Brass 3827* (TYPE), April, 1933, alt. 500 m., ra'n-forest floor (shrub 50–60 cm.; leaves paler beneath, margins slightly recurved; globose white fruit \pm 1 cm. diameter).

Psychotria dieniensis in some ways suggests *P. multicostoides* Val.; however, the pubescence is still on the upper parts of the fruiting specimens at hand and is too heavy to pass as either fugacious or puberulous, while the whole surface of the stipules is hairy, not just the margin. There is a great similarity between the characters of the leaves of both species, but in our species the fruit is crowned by the calyx, which has five pubescent lobes, and the disk is slight and inconspicuous, whereas in Valetton's species the fruit is crowned by the disk, a feature suggesting that the calyx is rather small and insignificant.

Psychotria camptodroma sp. nov.

Frutex; ramulis ultimis villosis cito glabrescentibus, internodiis 1–6 cm. longis; stipulis ovatis, circiter 2 cm. longis, villosis deinde glabrescentibus, apice bifidis, lobis 6–7 mm. longis, lineari-lanceolatis; cicatricibus subvillosis; foliis 6–12 cm. longis, 3–5 cm. latis, late oblongis, apice breviter acuminatis, acumine lato et obtuso, basi cuneatis, supra glabris, subtus sparsim rufo-pilosis, nervis lateralibus utrinsecus 9–12, supra impressis, subtus prominentibus, patentibus deinde arcuatim anastomosantibus, venis paucis sub lente utrinque manifestis; petiolo 1–2 cm. longo, dorso glabrescente; inflorescentiis (in fructu) circiter 6 cm. longis (pedunculo 2–2.5 cm. longo incluso), 4 cm. latis, axi et ramis breviter villosis; floribus pedicellatis, pedicellis \pm 3 mm. longis; calyce et ovario glabrescentibus, calycis lobis 4, ovatis, circiter 1.5 mm. longis, corollae tubo 9 mm. longo, utrinque glabro, lobis 4, triangularibus, 4 mm. longis, extus apice interdum paulo pubescentibus; staminibus supra basin 6 mm. insertis, filamentis circiter 1.5 mm. longis, antheris vix 2 mm. longis; stylo 9 mm. longo, stigmatibus lineari-oblongis; fructibus subglobois, circiter 7 mm. diametro, calyce coronatis, immaturis; albumine ruminato.

BRITISH NEW GUINEA: Mount Tafa, *Brass 5102* (TYPE in Herb. New York Bot. Gard.), Sept., 1933, alt. 2400 m., bush in valley forest, rare (leaves dark and shining, nerves deeply impressed above, prominent beneath; flowers white).

Psychotria camptodroma is to be distinguished from *P. malacorrhax* (Lauterb. & K. Schum.) Val. by the pubescence on the lower surface of the leaves and by the lobed calyx. Both are species with short inflorescences and large flowers.

Psychotria malaloensis sp. nov.

Probabiliter frutex; ramulis dense patenti-pilosulis, pilis rufis, demum glabratis, internodiis superis 1–3.5 cm. longis; stipulis 6–8 mm. longis,

basi connatis, apice bifidis, bi-costatis, extus dense pilosulis, lobis attenuatis filiformibus, in ramulis novellis subpersistentibus; foliis oblongo-lanceolatis vel anguste ellipticis, 4.5–9 cm. longis, 2.2–3.5 cm. latis, apice leviter acuminatis, summo apice obtusiusculis, basi obtusis, subcoriaceis, supra glabris, subtus consperse costa nervisque dense patenti-pilosulis, nervis lateralibus utrinsecus 7 vel 8, supra impressis, subtus prominulis, venis tenuibus inconspicuis; petiolo 5–7 mm. longo, crassiusculo, dense patenti-pilosulo; inflorescentiis totis patenti-pubescentibus, immaturis 2 cm., in fructu 3 cm. longis, basi trichotomis, ramis \pm 1 cm. longis in apice 1 vel 3 flores ferentibus; floribus circiter 3 mm. pedicellatis; calyce \pm 3 mm. longo, tubo campanulato, lobis 1.5 mm. longis, 2 mm. latis, patentibus; corolla valde immatura, fauce villosula; fructibus pyriformibus, 12 mm. (calycis tubo incluso) longis, 7 mm. diametro, sparsim pubescentibus, pyrenis 9 mm. longis, 6 mm. latis, obovatis, apice leviter concavis, dorso convexis, ventre planis; albumine subruminato.

NORTHEAST NEW GUINEA: Malalo Mission, *Clemens 4412* (TYPE), Nov., 1936, alt. 600 m.

The fruit of this species is similar in shape to that of *P. diplococca* (Lauterb. & K. Schum.) Val. but the leaves are very much smaller and have many less nerves.

Psychotria ihuensis sp. nov.

Frutex parvus; ramulis ultimis patenti-pubescentibus, pilis rufis, internodiis 2–5 cm. longis; stipulis 2–2.5 cm. longis, ultra medium bifidis, basi triangulari dense pubescentibus, lobis alatiformibus glabris margine pubescentibus, deciduis; foliis valde chartaceis, 18–22 cm. longis, 5.5–8.5 cm. latis, ellipticis, basi elongato-cuneatis, apice acuminatis, supra glabris, subtus costa dense, nervis sparsim pubescentibus, nervis lateralibus utrinsecus 15 vel 16 utrinque perspicuis, venis inconspicuis; petiolo 2 cm. longo, in sicco supra bisulcato, subtus convexo pubescente; inflorescentiis circiter 5 cm. longis latisque, pedunculatis (pedunculo vix 1.5 cm. longo), tantum cum fructibus immaturis visis, fructibus (calyce excluso) glabris reliquis pubescentibus, pilis rufis patentibus; ramis 4-verticillatis vel superioribus oppositis; bracteis linearibus 1–5 mm. longis; ramulis ultimis brevissimis; fructibus 1–1.5 mm. pedicellatis, apice calyce persistente coronatis; calyce valde 5–6-dentato, dentibus acutis; albumine probabiliter ruminato.

BRITISH NEW GUINEA: Ihu, Vailala River, *Brass 962* (TYPE), Feb., 1926, rain-forest (softwood shrub; leaves somewhat fleshy).

This collection was previously reported, Jour. Arnold Arb. 14: 65. 1933, as *Psychotria polyneura* Val. vel aff. It differs in several characters from that species; in this new species the stipules are split beyond the middle, the thickened basal triangular part is pubescent on both surfaces, the rest of the stipule is thinner in texture and pubescent only on the margin, each lobe being somewhat like a wing attached to the sides of the triangular pubescent part, the veins are mostly inconspicuous except for the main one which splits, each branch lying fairly close to the inner margin of each lobe, the nerves ascending rather than spreading, and the inflorescence is densely pubescent and the bracts are linear. The specimen more nearly answers the description of *P. ochmiodiophora* Wernh. but in the latter the

inflorescence is much more ample, and the calyx-lobes are three times as long.

Psychotria dolichosepala sp. nov.

Frutex 1.5 m. altus; ramulis ultimis compressis rufo-pubescentibus, internodiis 1-8 cm. longis, stipulis 1.2-2.5 cm. longis, 5-9 mm. latis, bifidis, extus \pm pubescentibus, intus dense pubescentibus, fere villosis, lobis 5-8 mm. longis, lineari-lanceolatis, subpersistentibus; foliis 5.5-13 cm. longis, 2.5-5.5 cm. latis, ellipticis vel lanceolatis, utrinque angustatis, apice obtuse acuminatis, basi acutis, supra glabris, subtus sparsim, nervis venisque dense rufo-pilosulis, nervis lateralibus utrinsecus 11-16 arcuato-patentibus prope marginem adscendentibus et interdum confluentibus, supra impressis, subtus prominentibus, venis et reticulo supra manifestis, subtus vix prominulis; petiolo 1-2 cm. longo, pubescente vel glabrato; inflorescentiis in alabastro 4 cm. (in fructu 4.5 cm.) longis, trichotomis, pedunculatis, pedunculo 1-1.5 cm. longo, ex toto (corollae tubo excepto) rufo-pubescentibus; bracteis linearibus; floribus breviter pedicellatis; ovario circiter 3 mm. longo, oblongo; calyce 4 mm. longo, 5-fisso, lobis angustatis, elongatis; corolla tantum in alabastro visa, tubo extus glabro intus dimidio superiore barbato-pilosulo, lobis extus pubescentibus; antheris probabiliter exsertis; fructibus ellipsoideis, 7 mm. (calyce incluso 11 mm.) longis, 5 mm. latis, pubescentibus, calyce coronatis, medianis leviter sulcatis; pyrenis fere levibus, 6 mm. longis, 5 mm. latis, dorso convexis, ventre planis, albumine ruminato.

NETHERLANDS NEW GUINEA: 9 km. northeast of Lake Habbema, *Brass 10871* (TYPE), Oct., 1938, alt. 2700 m., forest undergrowth in valley bottom (shrub 1.5 m.), Bele River, 18 km. northeast of Lake Habbema, *Brass 11224*, Nov., 1938, alt. 2300 m., frequent in forest undergrowth (flowers white).

In several characters this species is similar to *Psychotria Wichmannii* Val. The latter differs in having larger leaves with prominent venation, much larger inflorescence, and costulate pyrenes.

Psychotria dolichosepala forma glabra forma nov.

A forma typica differt planta glabra; stipularum cicatricibus tantum rufo-pubescentibus; foliis saepe acute acuminatis, venis inconspicuis, inflorescentiis paulo latioribus (6 cm. latis); antheris inclusis.

NETHERLANDS NEW GUINEA: 15 km. southwest of Bernhard Camp, Idenburg River. *Brass 12096* (TYPE of form), Jan., 1939, alt. 1800 m., occasional in mossy forest seral growths (shrub 1 m. high; flowers white).

Apart from the lack of pubescence this collection very closely resembles the species described above. Possibly it is only a variation brought about by altitude or by habitat.

Psychotria trichocarpa Val. Bot. Jahrb. 61: 100. 1927.

BRITISH NEW GUINEA: Wuroi, Oriomo River, *Brass 5720*, Jan., 1934, alt. 10-20 m. light rain-forest (low spreading shrub under 1 m. high; leaf-nerves prominent and whitish beneath; flowers white).

Although the type came from Northeast New Guinea at 600 m. altitude the habit is so striking and our specimen fits the original description so well that we have no hesitancy in assigning it to this species.

Psychotria balimensis sp. nov.

Frutex parvus, 1 m. altus, inflorescentiis exceptis glaber; ramis cinereis, teretibus, longitudinaliter sulcatis, internodiis 5–15 mm. longis; stipulis 7–9 mm. longis, elongato-ovatis, apice acutiusculis, caducis, cicatricibus pubescentibus; foliis leviter obovato-oblongis vel elliptico-oblongis, 3.5–8.5 cm. longis, 1.5–3.5 cm. latis, apice acutis vel breviter acuminatis fere apiculatis, basi cuneatis, valde chartaceis, nervis lateralibus utrinsecus 10–15 patentibus prope marginem arcuatis, utrinque prominulis, venis subobscuris vel manifestis; petiolo \pm 5 mm. longo; inflorescentiis 3–6 cm. longis, pedunculatis, pedunculo 1.5–2.5 cm. longo, axi et ramis puberulis, ramis verticillatis; floribus glabris, sessilibus vel subsessilibus; calyce undulato, circiter 0.5 mm. longo; corollae tubo 2.5 mm. longo extus glabro, intus fauce inferiore et inter stamina villosa-barbato, lobis 2 mm. longis; filamentis brevissimis, antheris ellipsoideis, 1 mm. longis, dimidio superiore exsertis; disco fere 1 mm. longo; stylo \pm 4.5 mm. longo, exserto.

NETHERLANDS NEW GUINEA: Balim River, *Brass 11679* (TYPE), Dec., 1938, alt. 1600 m., muddy banks of stream (shrub 1 m. high; flowers white).

This species may be allied to *Psychotria Wernhamiana* S. Moore; from the original description of the latter it would seem as if the two are similar in habit. Moore's species has a bracteate inflorescence, whereas in *P. balimensis* the branches are subtended by little more than ciliate slightly protruding margins, the calyx is not dentate, and the corolla is villous in the lower part of the throat; further, the leaves are not striolate.

Psychotria multifurca Val. Bot. Jahrb. 61: 90. 1927.

NETHERLANDS NEW GUINEA: 15 km. southwest of Bernhard Camp, Idenburg River, *Brass 12261, 12355*, Jan., 1939, alt. 1800 m. and 1650 m., open place in mossy forest, and open side of a ravine (shrub 1–1.5 m. high; leaf-margins crinkled; flowers white); 6 km. southwest of Bernhard Camp, Idenburg River, *Brass 12800*, Feb., 1939, alt. 1200 m., rain-forest undergrowth (tree 3 m. high; leaf-margins crinkled).

These collections agree in large measure with the original description of Valetton's species. It is to be noted that Brass has recorded in each collection that the leaf-margins are crinkled, this is not a common character in the group under consideration, nor is it mentioned in the original description of this species; in the dried specimens it appears in varying degrees. The leaves are almost caudate-acuminate (acumen 1.5–2 cm. long) rather than shortly or moderately acuminate as indicated in Valetton's remarks, and the lateral nerves although distinctly manifest hardly project at all beyond the lower leaf-surface. The inflorescences seen are 12–15-flowered but scarcely multiflorous. Another collection apparently belonging to this alliance is *Brass 3990* from Dieni, Ononge Road, collected at 500 m. alt. from the rain-forest floor, a very small shrub with leaves 11–15 cm. long and 1.5–2.5 cm. broad, very thin in texture, at base and apex acute and acuminate.

Psychotria multicosoides Val. Bot. Jahrb. 61: 92. 1927, vel. aff.

BRITISH NEW GUINEA: Mafulu, *Brass 5304*, Oct., 1933, alt. 1250 m., in oak forest (small shrub; leaves smooth, dull; flowers white, perfumed; soft white fruit).

This collection, in practically all characters except those of the flowers and fruit, corresponds to the original description of *Psychotria multicos-*

toides Val. In his comment after the citation of specimens Valetton indicates that the material is not sufficiently complete for a good description. Whereas Valetton describes the calyx as cupular, obsoletely dentate or truncate, and the young fruit as pyriform crowned by the disk, in the Papuan collection the flowers are fairly large, the calyx is cupular, 1.5 mm. long, and varying from undulate to irregularly dentate; the corolla-tube is 5 mm. long and barbate in the upper half, with lobes 2 mm. long; anthers 1.5 mm. long, exerted; style and stigmas 5 mm. long; the fruit is more or less subglobose, 5 mm. long, 4 mm. diameter, and obviously crowned by the calyx, the pyrenes are slightly 2-costate and rugulose on the dorsal surface, and the albumen is ruminant.

Psychotria miniata sp. nov.

Arbor parva ad 5 m. alta, sparsim ramosa, glabra; ramis ultimis compressis, internodiis circiter 1 cm. longis; stipulis non visis, cicatricibus glabrescentibus; foliis obovato-ellipticis, 24–28 cm. longis, in tertio supero 9–11 cm. latis, deorsum sensim angustatis, basi elongato-cuneatis, apice subabrupte acuminatis, acumine circiter 1 cm. longo, chartaceis, utrinque glabris, nervis lateralibus utrinsecus \pm 21 utrinque prominulis, oblique adscendentibus vel patenti-adscendentibus prope marginem arcuatis, reticulo supra obscuro, subtus sub lente conferto; petiolo \pm 1 cm. longo, supra plano, subtus convexo; infructescentiis 5 cm. longis, prope basin ramosis; floribus non visis, probabiliter in apice ramulorum subfasciculatis; fructibus subglobois, in sicco 1.3 cm. diametro, pyrenis 1 cm. longis, 7–8 mm. latis, ventre fere planis, dorso convexis, in tertio infero abrupte cuneato-angustatis et valde compressis, supero 3-costatis, costis acutis, apice leviter concavis, semine pyrenae conformi, albumine ruminato.

SOLOMON ISLANDS: Ysabel: Garona River, *Brass* 3362 (TYPE), Dec., 1932, swampy lowland forests (small sparsely branched tree attaining 5 m. in height; leaves fleshy, grayish beneath; fruit smooth, scarlet, about 2 cm. diameter).

The distinguishing features of this species are the large leaves with relatively short petioles, the short infructescences with large fruits barely pedicellate, and the pyrenes with three acute ribs or narrow wings on the upper two-thirds of the dorsal surface.

Psychotria Kajewskii sp. nov.

Arbor circiter 15 m. alta; ramis ultimis glabris, compressis, internodiis vix 1 cm. longis (ramis visis tantum 10 cm. longis); stipulis non visis, cicatricibus novellis suberosis intus leviter pubescentibus; foliis oblongis, 14–22 cm. longis, 4.5–8 cm. latis, apice subabrupte acuminatis, acumine vix 1 cm. longo, basi anguste cuneatis, utrinque glabris, tenuiter chartaceis, nervis lateralibus utrinsecus 13–16, supra manifestis, subtus prominulis, patentibus, versus marginem arcuatis \pm confluentibus, reticulo supra inconspicuo subtus manifesto, sub lente conferto; petiolo 2–4.5 cm. longo; inflorescentiis glabris, plerumque e basi ramosis, 4–6 cm. longis, ramis verticillatis vel oppositis, brevibus, verticillis saepe 2; floribus 1–3 (in fructu 7) mm. pedicellatis; calyce et ovario 1.5 mm. longis, calyce brevissimo et undulato; corolla sub anthesin 2.2 cm. longa (intus glabra), lobis 3–4 mm. inclusis; antheris 2–3 mm. longis, probabiliter anthesin tempore exertis; filamentis antheris aequaliter longis; stylo 1.8 cm. longo; fructibus

globosis, \pm 1 cm. diametro; pyrenis 1 cm. longis, 7.5 mm. latis, ventre planis, dorso medio carinatis marginem versus convexis deinde compressis; albumine ruminato.

SOLOMON ISLANDS: Bougainville: Kupei Gold Field, *Kajewski 1652*, April, 1930, alt. 950 m., rain-forest; same locality, *Kajewski 1707* (TYPE), April, 1930, alt. 1000 m., rain-forest (small tree up to 15 m. tall; flowers white; fruit brown when ripe, globular, 1.1–1.2 cm. diameter).

Psychotria Kajewskii has several characters in common with the description of *P. aurea* Lauterb. The lateral veins of the leaves are, however, definitely spreading rather than ascending, the flowers are considerably larger, and the throat of the corolla is not barbate as in the latter species. In our species the calyx-tube is so short that at the apex of the fruit the disk is more prominent than the calyx.

Psychotria melanoearpa sp. nov.

Arbor 6–7 m. alta; ramulis ultimis glabris, nigrescentibus, internodiis 1–3 cm. longis; stipulis 1.5–2 cm. longis, \pm 1.2 cm. latis, basi connatis, bilobatis, lobis basi latis, apice circiter 3–4 mm. lineari-subulatis, extus \pm dense pubescentibus deinde glabrescentibus, subpersistentibus; foliis ellipticis vel oblongo-ellipticis, 7–20 \times 3–12 cm. etiam 10 \times 4 cm., 22 \times 9 cm., 24 \times 12.5 cm., apice vel abrupte acuminatis (acumine 7–10 mm. longo) vel sensim acuminatis (acumine circiter 1.5 cm. longo), basi rotundatis vel obtusis deinde cuneatis vel breviter decurrentibus, coriaceis, supra glabris, subtus consperse puberulis deinde glabratis, costa nervisque \pm dense pubescentibus, nervis lateralibus utrinsecus 10–18 oblique patentibus deinde arcuatim adscendentibus, supra impressis, subtus prominentibus, venis subtus prominulis laxum reticulum formantibus, supra manifestis; petiolo 3–5.5 cm. longo, glabro; inflorescentiis immaturis 3 cm. longis, ramis et ramulis dense minute pubescentibus, verisimiliter non bracteatis; alabastris sessilibus vel subsessilibus in apice ramorum brevium, glabris; calyce et ovario 2.5 mm. longis, calycis limbo 1 mm. longo, minute dentato; corolla 2.5 mm. lobis 2 mm. inclusis longa (probabiliter maturitate longiore), fauce et loborum basi barbatis; infructescentiis 10–12 cm. longis, circiter 10 cm. latis, pedunculo vix 3 cm. longo, ramis verticillatis, verticillis 3 vel 4, fructibus subglobosis basi leviter angustatis, 1.2 cm. diametro, pyrenis levibus, dorso convexis, ventre planis, basi late cuneatis; albumine ruminato.

BRITISH NEW GUINEA: Palmer River, 2 miles below junction Black River, *Brass 7090* (TYPE), June, 1936, alt. 100 m., subseral forest on an old garden site in ridges (tree 6 m. tall; leaves stiff, prominently nerved; flowers white); Fly River, 528 mile Camp, *Brass 6735*, May, 1936, alt. 80 m., common in rain-forest second growths (small tree 6–7 m. tall; stiff branching habit; leaves pale, shining above; fruit subglobose, fleshy, black, \pm 1.2 cm. diameter).

It is difficult to suggest some species which might be considered as nearly related to this. In some features of the leaves, and also in the cupular almost truncate calyx, there is a little similarity with *Psychotria sentanensis* Val., but the former species seems to be amply distinct from the others described on the following combination of characters: prominent leaf-venation, sparsely reddish hairy along the main nerves; glabrous long petiole; ebracteate inflorescence with pubescent axis and branches; gla-

brous flowers with short cupular minutely dentate calyx; black shining fruit with smooth pyrenes.

Psychotria solomonensis sp. nov.

Arbor parva, usque 8 m. alta, inflorescentiis leviter puberulis exceptis glabra; ramulis ultimis teretibus, vel leviter compressis, levibus, internodiis superioribus 0.7–2.5 cm. longis; stipulis elliptico-oblongis \pm 1 cm. longis, apice late acutis, ad medium connatis, cito caducis; foliis oblongo-ellipticis vel leviter obovato-oblongis, 6–12 cm. longis, 1.5–4.5 cm. latis, apice subabrupte acuminatis, acumine 0.6–1.5 cm. longo, acutiusculo, basi angustatis acutis vel cuneatis, firme chartaceis, nervis lateralibus utrinsecus 8–12 utrinque prominulis, arcuatim adscendentibus, reticulo utrinque \pm manifesto, sub lente conferto; petiolo 1–2 cm. longo; inflorescentiis 2.5–4 cm. longis, e basi ramosis, minute puberulis, minute bracteatis; floribus in apice ramulorum breviter vel vix pedicellatis, glabris; calyce \pm 1 mm. longo, cupuliforme, minute 5-dentato; corollae tubo 3.5 mm. longo, fauce dense barbato, lobis 1.5 mm. vel vix 2 mm. longis; antheris 1 mm. longis, exsertis, filamentis 1 mm. longis; fructibus 7 mm. diametro, subpyriformibus; pyrenis dorso subrugosis et leviter 3-costatis, ventre planis; albumine ruminato.

SOLOMON ISLANDS: Ysabel: Tatamba, *Brass 3419*, Jan., 1933, alt. 50 m., hardwood forests (slender small tree with smooth green branches; leaves with recurved apex, lower surface of petiole and midrib brown; fruit smooth, shining brown); Malaita: Quomonapu, *Kajewski 2367* (TYPE), Dec., 1930, alt. sea level, rain-forest (small tree up to 8 m. tall; flowers white; fruit red when ripe, 7 mm. diameter); Guadalcanal: Uulolo, Mount Tutuve, *Kajewski 2567*, April, 1931, alt. 1200 m., rain-forest (small tree or large shrub-like tree up to 4 or 5 m. high; fruit brown-green when ripe, 1.2 cm. diameter); same locality, *Kajewski 2609*, alt. 1500 m., rain-forest (small tree up to 8 m.; fruit red when ripe, 1.8 cm. long, 1.6 cm. diameter); San Cristoval: Hinuahaoro, *Brass 3063B*, Sept., 1932, alt. 900 m., mountain rain-forests (small tree 2–3 m., underside of leaves gray-green; flower white; fruit green).

We have not seen the flowers of the last specimen cited above, but in general habit it seems to agree with the others. The species somewhat resembles *P. luconiensis* (Cham. & Schlecht.) F. Villar. It is readily distinguished from the latter by the closer reticulation of the leaves, the fewer lateral veins, the less definitely dentate calyx, and relatively much longer tube and shorter lobes of the corolla.

Psychotria hebecarpa sp. nov.

Arbor parva; ramulis ultimis dense patenti-pilosis, pilis crispulis, internodiis 0.7–1.5 cm. longis; stipulis 1–1.2 cm. longis, 3–4 mm. latis, dense patenti-pilosis, ad medium bifidis (lobis lineari-subulatis) mox caducis, cicatricibus annularibus intus dense pilosis; foliis oblongis, 3.5–10 cm. longis, 1.8–3.5 cm. latis, apice acutis, basi truncatis, chartaceis, supra glabris, subtus molliter pubescentibus, nervis lateralibus utrinsecus 8–13 supra manifestis, subtus subprominulis, subpatentibus, prope marginem \pm confluentibus; venis inconspicuis; petiolo 1–2.5 cm. longo, gracili, dense crispule patenti-piloso; inflorescentiis 1.5 (in fructu 2) cm. longis, breviter pedunculatis (pedunculo 0.6 1 cm. longo), totis dense patenti-pilosis vel subvillosis, bracteatis, bracteis subulatis, parvis; floribus ante anthesin tantum visis; calycis lobis 5, lanceolatis, 1 mm. longis; corolla 5 mm. longa, tubo leviter supra medium dense barbato, lobis 1.5 mm. longis; filamentis

1 mm. longis, antheris linearibus, 1 mm. longis; stylo glabro, 3 mm. longo. fructibus oblongis, calyce coronatis, in sicco leviter costatis, 5 mm. longis, 3 mm. diametro; pyrenis dorso leviter 3-costatis, albumine aequabile.

BRITISH NEW GUINEA: Aisa River, Central Division, *Brass 1419* (TYPE), May, 1926, in light pole forests (small tree; fruit white, succulent).

A species readily recognized by the contour of the leaves, the crisply hairy inflorescence, the oblong costate fruits, and the linear-subulate lobes of the stipules.

Psychotria tenuipes sp. nov.

Arbor usque 6 m. alta, glabra; ramulis ultimis teretibus, internodiis 1.5–2.5 cm. longis; stipulis gemmae evolutae deciduis in apice ramorum in vaginam longissimam (10–25 mm. longam) subteretem gemmam includentem connatis, apice 4-furcatis; foliis oblongo-lanceolatis, 5.5–11.5 cm. longis, 1.5–4 cm. latis, acutis vel acuminatis basi cuneatis, chartaceis, nervis lateralibus utrinsecus 8–13 utrinque prominulis, reticulo laxo utrinque manifesto; petiolo 1–1.4 cm. longo; inflorescentiis \pm 3 cm. longis, plerumque bis ramosis, paucifloris; pedunculo gracili, \pm 1.5 cm. longo; floribus circiter 5 vel 6, pedicellatis, pedicello 1.5–2 mm. longo; calyce cupulari tubo 1.5–2 mm. longo, lobis 1.5 mm. longis; corolla glabra, tubo 5 mm. longo, lobis 3 mm. longis; antheris 2 mm. longis; fructibus oblongis, circiter 1 cm. longis, 5 mm. latis, \pm obtuse 4-angulatis; calyce vix persistente; pyrenis 7 mm. longis, 4 mm. latis, dorso medio manifeste costato, costa lata et obtusa, ventre plano; albumine aequabile.

SOLOMON ISLANDS: Bougainville: Kupei Gold Field, *Kajewski 1708* (TYPE), April, 1930, alt. 1000 m., rain-forest (small tree up to 6 m. high; flower white; fruit brown when ripe, oblong ending in a sharp point, 1 cm. long, widest diameter 6 mm.).

Psychotria tenuipes is best recognized by the very slender inflorescence (sometimes axillary) and the oblong obtusely angled fruit. The type is fragmentary and more material is needed, but it looks like none of the other species which we have seen.

Psychotria tenuis sp. nov.

Arbuscula 3 m. alta, glabra; ramulis gracilibus, 4-angulatis, internodiis 0.5–2 cm. longis; stipulis 1 mm. longis in tubum vaginatum connatis, apice bidentatis, caducis; foliis 3–5 cm. longis, 0.6–1.4 cm. latis, anguste lanceolatis, apice attenuato-acuminatis vel caudatis, cauda \pm 1 cm. longa, angusta, obtusiuscula, basi cuneatis, chartaceis, nervis lateralibus utrinsecus circiter 5, supra obscuris, subtus vix manifestis; petiolo 3 vel 4 mm. longo, tenui; inflorescentiis 1–2 cm. longis, pedunculatis, pedunculo \pm 5 mm. longo, ramosis, ramis vix 5 mm. longis, bracteatis, paucifloris; bracteis minutis; calyce vix 1.5 mm. longo, minute 5-dentato; corollae tubo 5.5 mm. longo, tereti, basi leviter tumido, intus in dimidio supero patenti-pubescente vel barbato, lobis ovatis, 1.5 mm. longis; filamentis 1 mm. longis, antheris 1 mm. longis, apice tantum exsertis; disco 1 mm. longo, ultra calycem protuberante; stylo 4 mm. longo, stigmatibus 1 mm. longis; fructibus ovoideis, 7 mm. longis, 4 mm. diametro, circiter 8-costatis, costis obtusis; pyrenis dorso 3-costatis, sulcis inter costas rotundatis, ventre planis, albumine aequabile.

NETHERLANDS NEW GUINEA: 6 km. southwest of Bernhard Camp, Idenburg River, *Brass 12983* (TYPE), Feb., 1939, alt. 1050 m., rain-forest undergrowth (tree 3 m. high; flowers white)

The habit of this species is very much like that of *Psychotria subcaudata* Val. but it is more slender in every way, the leaves are longer petioled and the apex is very much narrower, and also the flowers differ in the relative lengths of the corolla-tube and lobes.

Psychotria trichostoma sp. nov.

Arbor parva glabra; ramulis subteretibus, internodiis 1-5 cm. longis; stipulis lanceolatis, apice (in specimine typico) caudatis, caducis, cicatricibus non pubescentibus; foliis lanceolato-ellipticis vel ellipticis, 13-18 cm. longis, 5-7.5 cm. latis, apice breviter acuminatis, acumine 0.5-1 cm. longo, basi 5-7 mm. lato, basi elongatis et anguste cuneatis vel acutis, chartaceis, nervis lateralibus utrinsecus 8-10 utrinque prominulis, oblique patentibus descendentibus, venis subtus manifestis sed inconspicuis, reticulo sub lente conferto manifesto vel obscuro; petiolo 2-3 cm. longo; inflorescentiis breviter (5-10 mm.) pedunculatis, non bracteatis; ramis 5-7 circiter 1-2 cm. longis deinde cymoso-ramosis, ramulis ultimis 3-4 mm. longis; floribus in apice ramulorum subfasciculatis, pedicellatis, pedicellis circiter 1 mm. longis; calyce et ovario obconicis, calyce truncato \pm 1 mm. longo; corollae tubo 3 mm. longo, fauce dense barbato, lobis 2 mm. longis, ovatis; antheris 1.2 mm. longis partim exsertis; stylo 3 mm. longo; fructibus 8 mm. diametro, vix maturis, subgloboso-pyriformibus, leviter compressis; pyrenis dorso convexis, apice subtruncatis, latere infra medium subabrupte paulo latioribus, basi late cuneatis, ventre subplanis; albumine aequabile ventre sulcato.

SOLOMON ISLANDS: Florida (N'Gela): north end of the island, *Brass 3515* (TYPE), Jan., 1933, coastal rain-forests (small tree with dull leaves, pale beneath; flower cream-colored; fruit smooth, green); Ysabel: Sigana, *Brass 3529*, Jan., 1933, rain-forest (small tree); Bougainville: Kieta, *Kajewski 1611*, Mar., 1930, alt. 100 m., rain-forest, near fresh-water creek (shrub up to 2 m. high; flower cream-green; fruit brown-green, 1 cm. long, 9 mm. diameter).

In Valetton's treatment of the genus *Psychotria* in Northeast New Guinea, under *P. Schmielei* Warb. he cites the collection *Warburg 21454*. We have at hand another specimen from the Bismarck Archipelago, *Warburg 21453*. Whether this is a duplicate or an isotype, we do not know, but apart from lacking fruit the specimen seems to agree well with the original description. Our species is very closely related to this one. The leaves are the same shape and the mode of inflorescence is comparable, but in Warburg's species the texture of the leaves is thinner, the branches and branchlets of the inflorescence are much less robust, perhaps one should say much more thread-like, the flower is smaller, and the corolla is glabrous in the throat; the fruit, according to the description, is 1-costate.

Psychotria trichostoma var. *macrophylla* var. nov.

A forma typica differt foliis majoribus, 29 cm. longis vel ultra, 13 (-19) cm. latis, inflorescentiis multiloricis, floribus (in alabastris tantum visis) multo minoribus.

SOLOMON ISLANDS: Bougainville: Marmaromino, *Kajewski 2203* (TYPE of var.), Sept., 1930, alt. 50 m., rain-forest (small tree up to 10 m. high; leaves large dark shiny green; flower-buds cream-colored; fruit red when ripe, 9 mm. long, 7 mm. diameter).

When further material has been collected this may prove to be a distinct

species; the specimens at hand, however, are too fragmentary to permit a final decision. The flower-buds are very much smaller than those on the type and much more crowded and profuse, but their structure is similar with indications of a very densely hairy corolla-throat. The pyrenes are essentially alike in outline but lack the slight broadening at the middle which characterizes those of the species. The leaves are very much larger, and in those which are little broken have 14 or 15 pairs of lateral nerves. The leaves on the fruiting specimen are very much broken and incomplete, but one is 19 cm. broad, and the lateral nerves (about 12 cm. above the base) are 2-3.5 cm. apart; the petiole varies from 2 to 5 cm. in length. In both flowering and fruiting specimens the peduncle is only 1 cm. long.

In addition to the above citations we have at hand another collection from Bougainville, *Kajewski 2001*, which has leaves, in size, intermediate between the species and the variety, but the fruit is orange-colored when ripe and when dry has a much thicker somewhat spongy exocarp. The pyrene closely resembles that of the species. Unfortunately we have no flowering material of this collection.

Psychotria sarcodes sp. nov.

Frutex ramosus 1.5 m. altus; ramulis ultimis compressis vel sulcatis, breviter patenti-pubescentibus, internodiis 1-5 cm. longis; stipulis brevibus, bilobis, extus rufo-pubescentibus, cito caducis, cicatricibus annularibus; foliis obovatis, 10-18 cm. longis, 4-6 cm. latis, tenuiter chartaceis, apice breviter acuminatis, basi elongatis anguste cuneatis vel acutis, supra glabris, subtus costa nervisque pubescentibus, nervis lateralibus utrinsecus 13-18 utrinque prominulis, oblique patentibus, venis vix manifestis, tenuibus; petiolo 1-1.5 cm. longo, supra glabro, plano, subtus pubescente, convexo; inflorescentiis circiter 2 cm. longis, e basi ramosis, minute puberulis, floribus glabris, 1 mm. pedicellatis; calyce vix 1 mm. longo, 5-dentato, dentibus caducis; corollae tubo 4 mm. longo, fauce ampliato, dense villosa-barbato; lobis 2 mm. longis; staminibus 5, sub dimidio corollae tubi insertis; stylo 4 mm. longo; stigmata bilobata, lobis planis; fructibus late ellipticis, in sicco 1 cm. longis, 9 mm. latis, compressis; pyrenis paulo minoribus, ventre planis, dorso complanatis sed ab apice ad medium carinatis, carina inclusa 3 mm. crassis; albumine aequabile.

SOLOMON ISLANDS: San Cristoval: Waimasi, *Brass 2782* (TYPE), Aug., 1932, alt. 100 m., rain-forests, common (bushy shrub 1.5 m. tall; leaves rather fleshy, petioles purple; flower white); Ulawa: *Brass 2954*, Oct., 1932, alt. 100 m., rain-forests (shrub 1.5 m. tall; flower white; fruit red, soft and fleshy, about 2 cm. diameter).

The distinctive characters of this species are the obovate leaves with elongated narrow base, the short inflorescences, and the flattened pyrenes with the sharp thin keel on the upper half.

Psychotria leiophylla sp. nov.

Arbor parva gracilis glabra, vel frutex magnus; ramis ultimis gracilibus compressis, internodiis 1-4 cm. longis; stipulis membranaceis intus dense pubescentibus, cito caducis, parvis, \pm 2 mm. longis, acutiusculis, \pm annularibus; cicatricibus saepe dense pubescentibus; foliis elliptico-lanceolatis vel lanceolatis, in specimine typico 11.5-18 cm. longis, 4.5-7 cm. latis, in ceteris 9.5-14 \times 3.5-7 cm. etiam 12-16 \times 3-4.5 cm., apice et

basi acutis vel leviter acuminatis, tenuiter chartaceis fere membranaceis, nervis lateralibus utrinsecus 8–10 utrinque subprominulis, oblique patentibus versus marginem arcuatim adscendentibus, reticulo laxo inconspicuo; petiolo 1–2.5 cm. longo, gracili; inflorescentiis 3–5 cm. longis latisque. cymoso-paniculatis; pedunculo 1–2 cm. longo; bracteis lineari-lanceolatis, inconspicuis; floribus in apice ramorum brevium subfasciculatis pedicellatis, pedicellis 1 mm. longis; calyce 0.5 mm. longo, dentato; corollae tubo 4 mm. longo, intus fauce densissime barbato, lobis 1.5 mm. longis, basi barbatis; antheris linearibus vix 1.5 mm. longis magna ex parte exsertis, filamentis brevissimis; stylo 5 mm. longo in parte superiore puberulo; fructibus late ovoideo-ellipsoideis, basi fere truncatis, apice late rotundatis calyce coronatis, 4–5 mm. longis, basi 4–5 mm., apice 3–4 mm. latis, 3 mm. crassis; pyrenis dorso subrotundatis, ventre bisulcatis; albumine aequabile.

SOLOMON ISLANDS: San Cristoval: Huro River, *Brass 3208*, Oct., 1932, river-ne rain-forest (small slender tree; under surface of leaves very pale green; flowers pale yellow); Star Harbor, *Brass 3133* (TYPE), Oct., 1932, coastal rain-forest (large shrub); Owa Raha (Santa Anna, southeast of San Cristoval), *Brass 3286*, Oct., 1932, alt. 100 m., rain-forest (small tree with very smooth and somewhat fleshy leaves).

A rather striking looking collection with very thin leaves, relatively short inflorescence, small flowers with the throat densely hairy, a character drawing instant attention to an open flower, unusual shaped fruit slightly broader at the base than at the apex, and lastly the sharp rib in the ventral surface of the pyrene emphasized on either side by a narrow sinus.

Psychotria waimamurensis sp. nov.

Frutex 1.5–2 m. altus; ramulis fusco-puberulis, internodiis 1.5–3 cm. longis; stipulis non visis, cicatricibus pubescentibus; foliis lanceolatis vel elliptico-lanceolatis, 11–19 cm. longis, 3.5–6 cm. latis, utrinque sensim angustatis, apice acuminatis acumine acuto vel obtusiusculo, basi anguste cuneatis, chartaceis, supra glabris, subtus costa nervisque inconspicue puberulis, nervis lateralibus utrinsecus \pm 14 oblique patentibus, supra manifestis, subtus prominulis, venis inconspicuis, reticulo laxissimo vix manifesto; petiolo 7–10 mm. longo, supra plano; inflorescentiis terminalibus, sessilibus, compactis, bracteatis; bracteis circiter 4, parvis, \pm 2 mm. longis, subrotundatis, extus minute pubescentibus; floribus non visis; fructibus \pm 12, breviter pedicellatis; pedicellis circiter 2 mm. longis, glabris; fructibus in sicco pyriformibus, costatis 12 mm. longis, 6 mm. diametro, glabris; pyrenis 10 mm. longis, 5 mm. latis, ventre planis, dorso convexis, medio alatiformi-costatis, interdum etiam costis 2 minoribus; albumine aequabile.

SOLOMON ISLANDS: San Cristoval: Waimamura, *Brass 3203* (TYPE), rain-forests; common (shrub 1.5–2 m. high; fruit red, fleshy).

This species suggests *Psychotria capitulifera* Merr. & Perry, but the leaves are more narrowed at both ends, the inflorescence is sessile, and the bracts subtending it are very much smaller than in the species from Ysabel Island.

Psychotria capitulifera sp. nov.

Arbor parva; ramulis ultimis subteretibus vel compressis et obtuse angulatis, pubescentibus, pilis patentibus, circiter 0.5 mm. longis, rubiginosis; stipulis \pm 17 mm. longis, fere ad medium bifidis, parte inferiore

utrinque pubescentibus, lobis lineari-lanceolatis, cicatricibus pubescentibus; foliis ellipticis vel obovato-ellipticis vel novellis oblongis, 9–20 cm. longis, 3–8.5 cm. latis, apice acutis vel breviter acuminatis, basi obtusis vel anguste rotundatis, chartaceis, supra glabris, subtus inter nervos sparsim nervis dense patenti-pubescentibus, nervis lateralibus utrinsecus 8–14, oblique adscendentibus, utrinque prominulis, venis supra obscuris, subtus inconspicuis, subparallelis, subtransversis vel obliquis; petiolo 0.5–1 cm. longo, dense patenti-pubescente; inflorescentia solitaria terminali erecta probabiliter globosa densiflora pedunculata, in sicco circiter 2 cm. diametro, involucreto, bracteis involucrealibus \pm 1 cm. longis, pedunculo 2 cm. longo, glabro; floribus dense confertis; pedicellis 2 mm. longis; calyce campanulato, tertio supero lobato, lobis circiter 1 mm. longis, inaequalibus, longe ciliatis ceterum glabris; corollae tubo 5–6 mm. longo, fauce dense barbato, lobis 5, 2.5–3 mm. longis, oblongo-lanceolatis, extus interdum pubescentibus, intus glabris; antheris paulo infra medium tubum insertis; disco plano, circiter 0.5 mm. longo, 1.5 mm. lato; stylo 5 mm. longo, glabro; stigmatibus planis, membranaceis, minute papillosis, patentibus.

SOLOMON ISLANDS: Ysabel; Tasia, *Brass* 3277 (TYPE), Dec., 1932, common in lowland rain-forests (small tree; lower surface, midrib and main nerves pink; flowers and bracts pink).

Psychotria capitulifera is readily separated from the other species of the genus at hand from the Papuan region by the pedunculate head of flowers surrounded by an involucre. The individual flowers, however, as far as we can see without mutilating the head too much, are not subtended by bracteoles, but at the base of the short pedicel there are occasionally a few hairs. The calyx-lobes are ciliate with long fairly crowded hairs; the mouth of the corolla-tube is crowded with hairs protruding from the throat; the stamens are below the hairy region of the throat; and the stigmas are very thin, flattened and spreading above the barbate throat. The young branchlets and the under surface of the leaves are pubescent with short spreading hairs. The structure of the throat and the position of the stamens suggest a dimorphic flower, but further material is necessary before making any positive statement on this character.

Calycosia A. Gray

Calycosia Kajewskii sp. nov.

Planta usque ad 2 m. alta, glabra; ramulis internodio supero 1 cm. longo excepto non visis; stipulis magnis, 8 vel 9 cm. longis, in sicco irregulariter plicatulis, margine supero consperse dentato, dentibus apice callosis; foliis magnis, obovatis, \pm 50 cm. longis, in tertio supero 12–15 cm. latis deorsum sensim attenuatis, basi acutis, apice acuminatis, acumine circiter 2 cm. longo, nervis lateralibus utrinsecus \pm 45 adscendentibus, utrinque prominentibus, venis inter nervos subregulariter transversis, inconspicuis; petiolo \pm 10 cm. longo, supra valde canaliculato; inflorescentiis subterminalibus; capitulo circiter 5 cm. lato, 4 cm. longo, bracteato; bracteis exterioribus ellipticis, obtusis, vix 4 cm. longis, pluribus; floribus inter bracteolas dispositis; bracteolis inaequaliter magnis, lanceolato-ellipticis, apice obtusis. basi intus glandulas elongatas suffultis; pedicellis 4 mm. longis; calyce tubulato, 6 mm. longo, undulate 5-lobato, glabro; corollae tubo 1.5 cm. longo, extus glabro, intus sub staminibus annulo-puberulo, lobis 5, circiter

3 mm. longis; antheris linearibus 2.5 mm. longis, inclusis, in fauce insertis; stylo gracili; stigmatibus exsertis; fructibus non visis.

SOLOMON ISLANDS: Bougainville: Kupei Gold Field, *Kajewski 1693* (TYPE), April, 1930, alt. 1000 m., on creek bank in rain forest (plant up to 2 m. high, with large green leaves and liking wet places; petals white, pistil transparent, almost water color, anthers white).

For the time being we have placed this collection in the genus *Calycosia*, since it has a fairly long tubular calyx, flowers in a capitate inflorescence surrounded by submembranous bracts, and large leaves. Although the general habit of the specimen is like that of *Calycosia*, the stipules are exceedingly large, also so folded and wrinkled that it is hard to say exactly what is their size and shape. The capitate inflorescence and the new vegetative bud apparently are between the two terminal leaves, one centimeter below this node and enclosing it are two stipules belonging to the node below. The bracts and bracteoles of the inflorescence are numerous and the bracteoles vary in size possibly with the age of the flower which they subtend, but all are similar in outline. We removed only a small part of the head for examination, and some flowers are already past anthesis and the corolla has fallen, while others are very young, the corolla-lobes protruding about 1 mm. above the margin of the calyx. The genus has not previously been recorded from the Solomon Islands.

Cephaelis Swartz

Cephaelis Kajewskii sp. nov.

Arbor parva usque ad 6 m. alta; ramulis minute patentibus, pubescentibus, demum glabratis, internodiis 2-4 cm. longis; stipulis in gemma terminali tantum visis, apice fractis, extus rufo-pubescentibus, caducis; foliis oblongo-lanceolatis vel oblongo-ellipticis, 10-14 cm. longis, 3-5.5 cm. latis, apice breviter et obtuse acuminatis, basi anguste cuneatis, supra glabris, subtus novellis \pm dense, maturis consperse (costa dense) pubescentibus, nervis lateralibus utrinsecus \pm 9 oblique patentibus arcuatis utrinque prominulis marginem versus gracillimis, venis costalibus intermixtis, tenuibus; petiolo 1-1.5 cm. longo, pubescente; inflorescentiis terminalibus vel axillaribus, sessilibus, capitulo circiter 3 cm. diametro, novellis 1.3 cm. longis, 7 mm. diametro; bracteis usque ad 3 cm. longis, extus \pm pubescentibus, ciliolatis; bracteolis usque ad 1 cm. longis, late rotundatis vel ovatis, membranaceis, glabris, ciliolatis; floribus \pm 1 mm. pedicellatis; calycis tubo circiter 2 mm. longo, glabro, lobis 1 mm. longis, ovatis, ciliatis; corollae tubo 4.5 mm. longo, extus glabro, fauce dense villosulo, lobis 2 mm. longis; antheris vix 1.5 mm. longis, sub fauce villosula positis; stylo 4.5 mm. longo, stigmatibus leviter exsertis; fructibus subglobosis, \pm 1 cm. diametro, calyce coronatis; pyrenis subrotundatis, 7 mm. longis latisque, dorso 3-costatis, costis alati-formibus deorsum angustatis, basi obscuris.

SOLOMON ISLANDS: Malaita: Quoi-mon-apu, *Kajewski 2333* (TYPE), Dec., 1930, sea level (small tree up to 6 m. high; fruit shiny red when ripe, 1.2 cm. diameter, with a small tubular protuberance at the end, pulp of fruit pink).

This species seems readily distinguishable from the other species of the genus reported from Papuasia by its smaller leaves, heads and flowers. We have not located any previous reports of the genus from the Solomon Islands.

Lasianthus Jack

Lasianthus cyanocarpoides Val. Bot. Jahrb. 61: 108. 1927.

NORTHEAST NEW GUINEA: Upper Ramu, *Clemens 10741*, Aug.-Dec., 1939. BRITISH NEW GUINEA: Dieni, Ononge Road, *Brass 3983*, May, 1933, alt. 500 m., rain-forest (one of several closely related plants common as rain-forest bushes). Previously known from Northeast New Guinea.

Lasianthus cyanocarpus Jack, var. *novaguineensis* Val. Nova Guin. Bot. 8: 498. 1911.

BRITISH NEW GUINEA: Fly River, 528 mile Camp, *Brass 6850*, May, 1936, alt. 80 m., uncommon in ridge forest undergrowth (shrub 2 m. tall). Described from Netherlands New Guinea, previously known only from the type collection.

Lasianthus chlorocarpus K. Schum. in K. Schum. & Lauterb. Fl. Deutsch. Schutzgeb. Süds. Nachtr. 399. 1905; Val. Bot. Jahrb. 61: 109. 1927.

NETHERLANDS NEW GUINEA: Mamberamo, near Prauwenbivak, *Lam 793, 1217*, Aug., Sept., 1920, alt. 100, 150 m.; Nabire, Geelvink Bay, *Kanehira & Hatusima 11632*, Feb., 1940, alt. 50 m., in tall rain-forest. BRITISH NEW GUINEA: Koitaki, *Carr 12648*; Bisiatabu, *Brass 585*, Nov. 1925, alt. 450 m.; Dieni, Ononge Road, *Brass 3982*, May, 1933, alt. 500 m. SOLOMON ISLANDS: Guadalcanal: Uulolo, Tutuve Mt., *Kajewski 2612*, May, 1931, alt. 1200 m. (shrub 1-2 m. tall; fruit blue, 8 mm. long, 6 mm. diameter, white flesh, black seeds).

Most of these collections are in fruit, very few flowers being available for comparison, and hence we are unable to tell whether this is conspecific with the Queensland material of *L. strigosus* Wight or not. The latter species is not represented in our herbarium from Ceylon, the type-region.

Lasianthus sylvestroides Val. Bot. Jahrb. 61: 109. 1927.

NETHERLANDS NEW GUINEA: 6 km. southwest of Bernhard Camp, Idenburg River, *Brass 12811, 13025*, Feb., Mar., 1939, alt. 1200 and 1250 m., rain-forest undergrowth (slender near-tree 1.5 m. high; flower-buds conspicuously white hairy; fruit soft, yellow; and in *13025* fruit white).

These specimens so closely fit the description of Valetton's species that we are adding a brief diagnosis of the flower-bud, since, although he mentions the flowers, he says nothing about them except what might be drawn by inference from a fruiting specimen. The leaves in our two specimens are 8.5-14 cm. long, 2-4.5 cm. broad; in the younger specimen between the horizontal parallel veins there is an inconspicuous reticulation which is lacking in the older more coriaceous leaves. The flower-buds are up to 13 mm. long, none of them yet open. Ovary 2 mm. long; calyx-lobes 6, linear-lanceolate, subulate, 3 mm. long, tube about 1 mm.; corolla 10 mm. long, outside particularly above the calyx densely spreading hirsute, within the lower 4 mm. of the tube is glabrous, then the tube begins to be pubescent and here are the 2 mm. long anthers (6), it is difficult to say where the lobes begin as the inside of the lobes is also densely pubescent; the style is 7 mm. long, glabrous, and topped by the 1 mm. long stigmatic lobes.

Lasianthus papuanus Wernham, Trans. Linn. Soc. II. Bot. 9: 78. 1916; Val. Bot. Jahrb. 61: 106. 1927.

NETHERLANDS NEW GUINEA: 4 km. southwest of Bernhard Camp, Idenburg River, *Brass 13639*, March, 1939, alt. 850 m., rain-forest; occasional in the undergrowth of gullies (fruit blue).

Our plant does not wholly fit this description; the base of the leaves is

cuneate, not subrounded, the upper surface of the leaves is glabrous, there are several flowers in an inflorescence rather than one or two, and the calyx-lobes on the fruit are only 1 mm. long. The buds are too young to disclose anything about the floral characters.

Saprosma Blume

Saprosma subrepandum (Lauterb. & K. Schum.) Val. Nova Guin. Bot. 8: 500. 1911
Bot. Jahrb. 61: 118. 1927

Psychotria (?) *subrepanda* Lauterb. & K. Schum. Fl. Deutsch. Schutzgeb. Süds. 579. 1900.

NETHERLANDS NEW GUINLA: Nabire, Geelvink Bay, *Kanehira & Hatusima 11559*, Feb., 1940, in tall rain-forest (plant 1 m. tall; fruit blue). BRITISH NEW GUINEA: Palmer River, 2 miles below junction Black River, *Brass 7178*, July, 1936, alt. 100 m., forest undergrowth on crests of high ridges (shrub 80-100 cm. high; fruit blue, \pm 1 cm. long); Dani, Ononge Road, *Brass 3996*, May, 1933, alt. 500 m., rain-forest understorey (slender bush or tree 2 m. tall; very thin dull leaves darker above; fleshy pale blue ovoid fruit \pm 1 cm. long, 7 mm. diameter); Koitaki, *Carr 12543*, June, 1935, alt. 450 m., forest (shrub little over 1 m. tall; flowers white). SOLOMON ISLANDS: San Cristoval: Magoha River, *Brass 2733*, Aug., 1932, alt. 150 m., rare; steep side of rain-forest ravine (much branched little shrub 50 cm. high; leaves wrinkled, very pale beneath).

These collections seem to have the characteristic stipular glands of the genus *Saprosma*. The species has been reported previously from Netherlands New Guinea and Northeast New Guinea. Several of the fruits cut transversely showed only one seed which would normally be called a pyrene, but one showed two locules and here the crustaceous thickening of the endocarp did not extend over the ventral wall of the seed as one would expect in the case of two pyrenes. More material is desirable.

Saprosma Brassii sp. nov.

Frutex circiter 2 m. altus; ramulis teretibus, novellis compressis vel leviter sulcatis, rufo-pubescentibus, pilis crispis; stipulis non visis vel fractis; foliis 13-16 cm. longis, 5.5-6.5 cm. latis, elongato-ovatis, apice obtuse acuminatis, basi rotundato-cuneatis vel obtuse cuneatis, supra glabris, subtus consperse costa nervisque \pm dense pubescentibus, pilis brevibus et crispis, nervis lateralibus utrinsecus 12 vel 13 distincte manifestis, subtus prominulis, oblique patentibus prope marginem arcuatim confluentibus, venis costalibus intermixtis, versus marginem reticulo laxo praesertim subtus distincte manifesto; petiolo 1.5-2.2 cm. longo, rufo-pubescente; inflorescentiis axillaribus, sessilibus, bracteatis, bracteis fractis; floribus confertis, probabiliter subsessilibus, bracteolatis; bracteolis \pm oblongis, 2-4 mm. longis, 1 mm. latis, extus sparsim, marginem versus dense pilosulis et margine 3-5-glandulosis, pilis glandulosis circiter 0.5 mm. longis; calycis tubo circiter 1 mm. longo, lobis 1.5-2 mm. longis, lanceolato-oblongis, extus pubescentibus, ciliatis; corolla in alabastro tantum visa, tubo extus glabro, 2 mm. longo, intus dimidio supero dense villosulo, lobis 1.5 mm. longis, extus sparsim pubescentibus; antheris in fauce insertis, 1.5 mm. longis; stylo glabro, stigmatibus lineari-oblongis; fructibus non visis.

SOLOMON ISLANDS: Florida (N'Gela or Tulagi): *Brass 3519* (TYPE), Jan., 1933, alt. up to 20 m., rain-forest slopes (compact shrub about 2 m. tall; leaves deeply wrinkled, upper side very dark and shining; flowers pink).

This is not closely comparable with any other species of *Saprosma* which we have seen. In the first place the dried plant is reddish brown rather than olive-brown as in the other species. The shape of the leaves is somewhat similar to that of the leaves of *S. pubescens* Ridl. but the venation is more crowded than in the latter, also the inflorescence is axillary in the Solomon Islands material, sessile and many-flowered, whereas in Ridley's species it is terminal with about 5 flowers.

Amaracarpus Blume

The genus *Amaracarpus* as here treated roughly includes three groups: (1) plants with large leaves and for the most part with almost filiform pedunculate axillary inflorescences; (2) plants generally pubescent with rather thick hairs on young shoots and with a very distinctive habit marked by horizontally placed small leaves and branches, flowers solitary and sessile or very short pedicellate, usually subtended by reduced leaves and stipules or stipule-like bracts; (3) glabrous plants with more irregular branching, often crowded leaves, rounded-oblong or ovate stipules, flowers larger than in either of the other groups, mostly with a granular-puberulent throat and relatively long filaments. It should be noted that none of these groups are exclusive in their characters. The first two usually have similar stipules, i. e. more or less connate into a tube and each terminated by two setae very often separated by a rounded sinus; on the lower surface along the midrib of the leaf is a spreading pubescence of very short hairs. The last group is least like the others, and it is this group which we should have liked to have placed in *Dolianthus* C. H. Wright, but we could not make our plants fit either the description of Wright or the emended one of Bremekamp. There are six species in this aggregate, *A. bicolor*, *A. caeruleus*, *A. buxifolius* (C. H. Wright), *A. Clemensae*, and *A. Archboldianus*, and one of these, *A. Clemensae*, has the pubescence characteristic of *Dolianthus* and a large number of species of *Amaracarpus*, but Wright does not mention any bracts on the inflorescence and Bremekamp clearly specifies that the flower is ebracteolate. In the material of *A. Clemensae* the bracts are conspicuously longer than the calyx. Only one species of this group is without subtending floral bracts and that is *A. Archboldianus*. Whatever may be the ultimate disposition of these species, it seems best at present to point out these differences and leave them here until such time as more material and types are available. It might be added that these species do not have the regular branching of *Amaracarpus* in the narrower sense, but it is also to be noted that in Valetton's key he indicates that not all species show clearly the dorsiventral branching.

Amaracarpus urophyllus sp. nov.

Frutex 1.5-2 m. altus; ramulis lineis decurrentibus pubescentibus a basi stipulorum exceptis glabris, internodiis 2-4 cm. longis, superioribus compressis; stipulis 1.5-2 cm. longis, basim versus et margine pubescentibus, apice setulosis (setis circiter 1.5 mm. longis), caducis, cicatricibus pubescentibus; foliis 7-14 cm. longis, 1.8-4 cm. latis, lanceolato-ellipticis vel lanceolato-oblongis, utrinque angustatis deinde apice longe et anguste caudato-acuminatis, basi cuneatis, supra glabris, novellis subtus costa

nervisque patenti-puberulis ceterum glabris, nervis lateralibus utrinsecus 10–12 in sicco utrinque prominulis, venis costalibus intermixtis, reticulo laxo utrinque manifesto; petiolo 5–7 mm. longo, glabro, supra canaliculato; inflorescentiis longe pedunculatis, axillaribus; pedunculo 3–5 cm. longo, gracillimo, glabro, apice 1–3-floro, bracteato; bracteis \pm 5 mm. longis; floribus sessilibus, glabris, vix maturis, bracteolatis; bracteolis minimis; calycis tubo 2 mm. longo, lobis 1.5 mm. longis, obtusiusculis; corollae tubo 6 mm. longo, intus glabro, lobis 2.5 mm. longis, antheris 3 mm. longis, partim exsertis; stylo 4 mm. longo, stigmatibus 1.5 mm. longis; fructibus oblongis, basi angustatis, 11.5 mm. longis (calyce incluso), vix 5 mm. diametro; pyrenis dorso rotundatis, ventre subplanis.

BRITISH NEW GUINEA: Mount Tafa, *BRASS 4098* (TYPE), Sept., 1933, alt. 2400 m., common in undergrowth of valley forest (bush 1.5–2 m. high; branches short and flat-spreading; leaves dark and smooth, midrib whitish underneath; flowers white; fruit smooth, green).

This species suggests *A. longifolius* Val. in general aspect, but the branchlets are pubescent only on two lines decurrent from the base of the stipules, the leaves are more abruptly and much more narrowly caudate-acuminate, the corolla is glabrous within the throat, the stamens have very short filaments, the stigmas are oblong and inconspicuously papillate, and the inflorescence at the insertion of the peduncle seems to be surrounded only by hairs.

Amaracarpus attenuatus sp. nov.

Frutex arborescens; ramulis plerumque glabris, internodiis 2–7 cm. longis, compressis interdum leviter sulcatis; stipulis in alabastris tantum visis, in latere uno fissis, caducis, cicatricibus intus dense pubescentibus; foliis ovato-lanceolatis vel lanceolatis, 8–15.5 cm. longis, 2.5–5 cm. latis, apice longe acuminatis, acumine 1.5–2.5 cm. longo, acuto, basi cuneatis, chartaceis, supra glabris, subtus costa nervisque patenti-pubescentibus, nervis lateralibus utrinsecus 9–11 supra impressis, subtus prominulis venis costalibus intermixtis, reticulo supra vix manifesto, subtus sub lente distincto, laxo; petiolo 6–10 mm. longo, glabro, supra canaliculato, dorso rotundato; inflorescentiis axillaribus paucifloris, gracillimis, 5–11 cm. longis, pedunculatis, pedunculo pubescente, 3.5–7 cm. longo, cymosoramosis, ramulis basi bracteatis, plerumque glabris, bracteis circiter 6 mm. longis lineari-filiformibus; floribus subsessilibus, basi bracteolatis, bracteolis minutis, circiter 0.5 mm. longis; calyce 1 mm. longo, 4-lobato, lobis latis obtusiusculis, sinibus latis concavis; corollae tubo 1.5 mm. longo, fauce \pm dense pilosulo, lobis 2 mm. longis; filamentis in fauce insertis, 1.5 mm. longis, antheris 1 mm. longis exsertis; stylo 1 mm. longo, stigmatibus 0.5 mm. longis, latiusculis; fructibus oblongis, 6 mm. longis, pyrenis in sicco dorso leviter 1–2-costatis, inter facies ventrales prope medias \pm spongiosis, ventre \pm costatis.

BRITISH NEW GUINEA: Oroville Camp, Fly River, *BRASS 7419* (TYPE), Aug., 1936, in riverbank undergrowth (arborescent shrub; flowers white; fruit soft, red, 6–7 mm. diameter).

According to the description and the plate, this plant seems to be allied with *Amaracarpus heterophus* Val. It differs in the following characters: (1) it is not so characteristically short-branched; (2) the stipules are

glabrous except toward the apex and they do not terminate in the setae characteristic of *A. heteropus* Val., they apparently split down one side and fall off as the bud expands; (3) the leaves are longer-acuminate; (4) the inflorescence is definitely long-pedunculate, and usually branched twice, the two lower branches are mostly terminated by a single flower, the rachis terminating in a single flower or branched again and bearing three flowers; (5) the flowers are about half as large as in Valeton's species.

Amaracarpus brachypus sp. nov.

Arbuscula 2 m. alta; ramulis glabris, internodiis 2-5 cm. longis; stipulis cito caducis, forsitan in una gemma visis, 3 mm. longis, minute pubescentibus; foliis 5.7-13.5 cm. longis, 2-4 cm. latis, valde chartaceis vel tenuiter coriaceis, glabris, elliptico-lanceolatis utrinque angustatis, apice attenuatis obtusis vel leviter acuminatis, basi cuneatis, in sicco margine integris vel subrepandis, nervis lateralibus utrinsecus 8-12 patentibus prope marginem arcuatim confluentibus, utrinque prominulis, venis costalibus inter nervos dispositis, reticulo satis laxo utrinque inconspicuo; petiolo circiter 5 mm. longo; floribus non visis; fructibus solitariis vel in triadibus in apice ramulorum brevium axillarum sessilibus, basi bracteis foliiformibus \pm 6 mm. longis vel foliis valde diminutis (usque ad 3 cm. longis) suffultis, pyriformibus, \pm 8 mm. longis, circiter 5 mm. diametro, in sicco leviter costatis et granulati-rugulosis, apice calyce coronatis (calycis lobis 2 mm. longis, lineari-oblongis, tubo 0.5 mm. longo); pyrenis dorso convexis undulatis, ventre costa media instructis.

BRITISH NEW GUINEA: Dieni, Ononge Road, *Brass 3876* (TYPE), April, 1933, alt. 500 m., rain-forest understorey (very small tree 2 m. tall; dark shining leaves; yellow-brown smooth slightly urceolate fruit \pm 8 mm. long, 7 mm. diameter).

The habit of this plant is very much like that of *Amaracarpus grandifolius* Val. but the latter is pubescent, the petiole is shorter, and the calyxlobes are shorter than the tube and relatively broad like a toothed margin rather than a lobed one.

Amaracarpus solomonensis sp. nov.

Arbor gracilis usque ad 7 m. alta; ramulis glabris, internodiis 2.5-5 cm. longis, superioribus compressis; stipulis \pm 2 cm. longis, lineari-oblongis, \pm pilosis, caducis, in gemmis terminalibus tantum visis; foliis 10-15 cm. longis, 3.5-5.5 cm. latis, tenuiter chartaceis, late lanceolatis vel anguste elliptico-lanceolatis utrinque angustatis, apice attenuatis acuminatis, summo apice obtusiusculis, basi cuneatis, utrinque glabris, nervis lateralibus utrinsecus \pm 10 utrinque subprominulis, patentibus et marginem prope arcuatim confluentibus, reticulo laxo supra obscuro vel utrinque manifesto; petiolo \pm 6 mm. longo, glabro, supra plano; inflorescentiis axillaribus, fasciculatis, brevissime pedunculatis (1-1.5 mm. longis); floribus 1-12 in fasciculo subsessilibus, bracteatis; bracteis membranaceis, glabris; calycis tubo 1.5 mm. longo, lobis vix 1 mm. longis, consperse pilosulis; corollae tubo 4 mm. longo, villosulo, lobis lineari-oblongis, 4 mm. longis; antheris partim exsertis; stylo 8 mm. longo; stigmatibus valde exsertis; fructibus circiter 8 mm. longis (calyce incluso), 4 mm. diametro, levibus; pyrenis dorso convexis, pariete dorsali tenui, ventrali lacunoso.

SOLOMON ISLANDS: Bougainville: Kieta, *Kajewski 1541*, March, 1930, alt. 15 m., rain-forest creek (plant up to 1.5 m. tall; fruit red when ripe, fleshy):

Guadalcanal: Berande River, *Kajewski 2394*, Dec., 1930, sea level, rain-forest (small tree about 7 m. high; petals cream-colored; fruit red-green when ripe, length including calyx 1 cm., diameter 6 mm.); Ula-wa: *Brass 2955* (TYPE), Oct., 1932, alt. 200-300 m., upland rain-forests (slender tree 5 m. tall, with a few short thin spreading branches at the summit; flowers white).

Amaracarpus solomonensis is probably related to *A. brachypus* Merr. & Perry. Both are glabrous plants with large leaves and short petioles. In the latter the fruit appears to be on short axillary shoots and subtended by leaf-like bracts; in the former the flowers seem to be axillary and subtended by membranaceous bracts. Further material of both species is desirable.

Amaracarpus subcaudatus sp. nov.

Arbuscula 3-4 m. alta; ramulis glabris, internodiis ultimis compressis, 5-10 mm. longis; stipulis vix 5 mm. longis, apice bifidis vel lineari-setulosis, setulis pubescentibus; foliis 3.5-6 cm. longis, 1-2.3 cm. latis, lanceolatis vel ellipticis, chartaceis, utrinque angustatis, apice late acuminatis, subcaudatis, basi cuneatis, supra glabris, subtus costa tantum minute patentibus, nervis lateralibus utrinsecus 8-10 valde patentibus prope marginem arcuatim confluentibus, utrinque distincte manifestis, venis costalibus sub lente intermixtis, reticulo conferto indistincto; petiolo 2.5-5 mm. longo, glabro, gracili; inflorescentiis axillaribus, bracteatis, sessilibus; floribus 1-3 in fasciculo, glabris; calyce circiter 1 mm. longo minute 4-5-dentato, margine minute ciliolato; corollae tubo 1.5 mm. longo latoque, fauce sparsim barbato, lobis 1.5 mm. longis; fructibus leviter obovoideis, 6 mm. longis, 4 mm. diametro; pyrenis dorso convexis, ventre planis, minute irregulariter rugulosis.

NETHERLANDS NEW GUINEA: 6 km. southwest of Bernhard Camp, Idenburg River, *Brass 12761* (TYPE), *12801*, Feb., 1939, alt. 1200 m., frequent in rain-forest undergrowth and common on crests of ridges (tree 3-4 m. high; flowers white; fruit red and fleshy).

The size and shape of the leaves of this species suggest *A. Nouhuysii* (Val.) Val. but the latter has a pedunculate inflorescence.

Amaracarpus calcicola sp. nov.

Frutex \pm 1 m. altus; ramulis maturis glabris, cinerascentibus, novellis crispis rufis pubescentibus, internodiis 1-2 cm. longis, ramulis ultimis valde diminutis ut videtur in axillis foliis aggregatis vel longioribus et axi stipulis subsistentibus tecto; stipulis novellis puberulis cito glabris, circiter 2-2.5 mm. longis, subovatis, apice bi-setulosis, subsistentibus; foliis 1-2.5 cm. longis, 0.5-1 cm. latis, in ambitu valde variabilibus, oblanceolatis vel ellipticis, apice rotundato-obtusis vel acutiusculis, basi angustatis acutis, glabris, valde chartaceis, nervis lateralibus utrinsecus 3-5 supra obscuris, subtus sub lente tantum paulo manifestis, adscendentibus; petiolo \pm 1 mm. longo; floribus solitariis in apice ramulis reductis positus, glabris; calycis tubo 1 mm. longo, lobis lineari-lanceolatis, 1.5 mm. longis; corollae tubo 3 mm. longo, intus fauce barbato, lobis 2 mm. longis, reflexis; antheris 1 mm. longis, inclusis; stylo vix 5 mm. longo, stigmatibus exsertis; fructibus (calyce incluso) 5 vel 6 mm. longis, vix 5 mm. diametro, subglobosis; pyrenis dorso leviter bisulcatis inter sulcos obtusis vel rotundatis, ventre subplanis vel leviter undulatis.

NETHERLANDS NEW GUINEA: Tabati, Jautefa Bay, *Brass 8849* (TYPE), June, 1938,

abundant in brushes of dry limestone hills of coast (shrub \pm 1 m. high; flowers white; fruit red).

Among the species of *Amaracarpus* already described, this is most like *A. Nymannii* Val. It is very close to *Schlechter 16090*, which collection Valetton determined as aff. *A. Nymannii* Val.; however, the Brass specimen differs in the thicker leaves and faint nervation. Here again the pubescence is fairly fine for *Amaracarpus*. On the other hand Valetton described the hairs of *A. Nymannii* as short and broad. This plant from Tabati is very irregularly branched, the shortest branchlets appearing as rosettes of leaves; if the branchlets are longer they are clothed with remnants of stipules. The calyx-teeth are fairly long and sharp in this species.

Amaracarpus trichocarpus sp. nov.

Frutex circiter 1 m. altus; ramulis subvillosis (pilis crispis, rufis), longitudine valde variabilibus, 2.5–20 cm. longis, internodiis \pm 1 cm. longis, ramulis ultimis in axillis foliorum valde diminutis; stipulis circiter 3 mm. longis, \pm pilosulis, obtuse lanceolatis, caducis; foliis 1.5–2.3 cm. longis, 0.5–0.7 cm. latis, tenuiter chartaceis, elliptico-lanceolatis, apice acutiusculis vel obtusiusculis, basi anguste cuneatis, sessilibus, utrinque glabris vel subtus costa sparsim pubescente, nervis lateralibus utrinsecus circiter 4, supra obscuris, subtus sub lente manifestis, venulis obscuris; floribus non visis; fructibus in apice ramulorum axillarum valde diminutorum dispositis, sparsim rufo-pubescentibus, subglobosis apice calyce coronatis, circiter 5 mm. longis (calyce 1 mm. longo incluso), calycis lobis 4, lineari-oblongis; pyrenis dorso convexis, ventre medio paulo obtuse costatis, endocarpio crassiusculo.

BRITISH NEW GUINEA: Hohoro, Vailala River, *Brass 1039* (TYPE), rain forests (small compact bush about 1 m. tall; branches horizontal; fruit red).

This species has fruit very much like that pictured by Valetton for *Amaracarpus pubescens* Bl., but the leaves here are much smaller and almost sessile.

Amaracarpus Schlechteri Val. Bot. Jahrb. 61: 116. 1927.

NETHERLANDS NEW GUINEA: Bernhard Camp, Idenburg River, *Brass 13863*, April, 1939, alt. 90 m., common in rain-forest of lower mountain slopes (undergrowth tree 2–3 m. high; branches horizontal; flowers white; fruit red).

This collection has slightly smaller (1.4–1.8 cm. long, 0.6–0.8 cm. broad) leaves more cuneate at the base and somewhat more crowded than those in an isotype of Valetton's species; nevertheless, we believe this is only a variation within the species.

Amaracarpus atrocarpus sp. nov.

Arbuscula usque 3 m. alta; ramis ramulisque \pm pilosulis, ramulis brevibus vel longioribus (4–30 cm. longis), internodiis \pm 1 cm. longis; stipulis membranaceis 3–4 mm. longis verisimiliter glabris apice setis 2, 2 mm. longis et dense pilosis terminatis, caducis; foliis 1.8–2.3 cm. longis, 0.7–1.3 cm. latis, rhombiformi-ellipticis, utrinque angustatis, apice breviter acuminate, acumine circiter 3 mm. longo, acutiusculo, basi acutis, sessilibus vel subsessilibus, chartaceis, utrinque glabris, nervis lateralibus utrinsecus 5 adscendentibus deinde arcuatis, supra inconspicuis, subtus sub lente prominulis, venulis conspersis et inconspicuis vel subobscuris; petiolo

subnullo; floribus solitariis ut videtur axillaribus et terminalibus, sessilibus vel subsessilibus, basi bracteis stipuliformibus suffultis; calycis tubo 1–1.5 mm. longo, lobis 2 mm. longis obtusiusculis; corollae tubo 3.5–4 mm. longo, 1 mm. diametro, fauce dense villosa, lobis 2–2.5 mm. longis; antheris linearibus vix exsertis; stylo 2 mm. longo; disco fere 1 mm. longo, 0.5 mm. diametro; fructibus subpyriformibus apice calyce coronatis, (calyce incluso) 7–9 mm. longis, 3 mm. diametro; pyrenis 5–6 mm. longis, dorso leviter bisulcatis vel obtuse 3-costatis, ventre subplanis.

BRITISH NEW GUINEA: Fly River, 528 mile Camp, *Brass 6741* (TYPE), May, 1936, alt. 80 m., one of the most common and most striking forest undergrowth species (small near tree attaining 3 m.; branchlets and leaves horizontal on the numerous shortly spreading, drooping branches; small white flowers solitary in axils; fruit black).

At first we were inclined to place this collection in *A. papuanus* Val. but the discrepancies between it and Valeton's species as illustrated, *Nova Guin. Bot. 8: t. 126*, 1912, have led us to describe it as new. This collection rarely has any short axillary branches as described and illustrated by Valeton, the leaves are much more sharply acuminate than in the plate, the flowers are apparently axillary subtended by stipule-like bracts although the latter may be very reduced branchlets, and occasionally a fruit is terminal also; the corolla in Valeton's species is subrotate-campanulate, while here it is hypocrateriform, the tube being 3.5–4 mm. long and 1 mm. diameter; in the flower of *A. papuanus* Val. the tube of the corolla is pictured as being as broad as long or slightly broader. The stipules of both are very much alike except that in our species they vary in length, the membranaceous part often being twice as long as the setae at the apex.

Amaracarpus papuanus Val. *Nova Guin. Bot. 8: 501*, 1911; op. cit. 769, *t. 126*, 1912; *Bot. Jahrb. 61: 115* (in key only), 1927.

NORTHEAST NEW GUINEA: Wantot (Wantot), *Clemens 10977*, Jan. 1940, alt. 1200–1500 m. (small tree; flowers white).

The above cited specimen seems to be more like the plate of this species than anything else which we have at hand. Since the original was collected in Netherlands New Guinea on the other side of the mountains and at a lower altitude, it would seem best, in a group which appears to be as specifically localized as the Psychotrieae, to compare it with the type for confirmation.

Amaracarpus xanthocarpus sp. nov.

Arbuscula 2–4 m. alta; ramis horizontalibus, ramulis pubescentibus (pilis adscendentibus), longitudine diversis 1.5–11 cm. longis, ultimis plerumque brevibus 0.2–2 cm. longis; stipulis in vaginam tubulatam tenuiter membranaceam 1 mm. longam connatis apice setis 4 pubescentibus terminatis, caducis, glabris vel pubescentibus; foliis 0.7–1.5 cm. longis, 0.4–0.7 cm. latis, ellipticis vel rhombiformi-ellipticis utrinque angustatis apice acutiusculis vel obtusiusculis, basi cuneatis vel acutis, tenuiter chartaceis, supra glabris, subtus costa praesertim deorsum ± pubescente excepta glabris, nervis lateralibus utrinsecus 3 vel 4 supra inconspicuis vel subobscuris, subtus manifestis vix prominulis, venis obscuris; petiolo 1–1.5 mm. longo; floribus in apice ramulorum brevium 2–6-fasciculatis, subsessilibus (pedicellis interdum 0.5–1 mm.), bracteatibus; bracteis basi

pedicelli dispositis; calycis tubo brevi, vix 1 mm. longo, lobis 4 oblongis obtusis, interdum sparsim ciliatis; corollae tubo 3 mm. longo utrinque glabro, latiusculo 1.5–2 mm. lato, lobis 1 mm. longis, ovatis extus apice leviter barbatis; staminibus 1 mm. longis, antheris supra fauce leviter exsertis; stylo brevi; fructibus subglobosis, 4–5 mm. longis calycis lobis coronatis, pyrenis 4 mm. longis, 3 mm. latis, dorso valde 3-costatis, ventre planis.

NETHERLANDS NEW GUINEA: 15 km. southwest of Bernhard Camp, Idenburg River, *Brass 12393*, Jan., 1939, alt. 1500 m., frequent in rain-forest undergrowth (tree 3–4 m. high; branches horizontal; very small white flowers and green fruit); 6 km. southwest of Bernhard Camp, Idenburg River, *Brass 12861* (TYPE), Feb., 1939, alt. 1200 m., occasional in rain-forest undergrowth (slender tree 2–3 m. tall; branches horizontal; flowers white; fruits yellow).

In size and shape of leaves and in the glabrous throat of the corolla, this species suggests *Amaracarpus rhombifolius* Val. However, the leaves are not sessile nor contiguous, the calyx-lobes are very obtuse, and the pyrenes are strongly three-costate on the dorsal surface, the middle costa being considerably larger than the others. The seed does not follow the contour of the putamen as to the ribs, the latter being more like appendages than folds in the crusty cover of the seed.

Amaracarpus compactus sp. nov.

Frutex vix 1 m. altus; ramis ramulisque breviter pilosis vel hirtellis, ramulis longitudine diversis 1–13 cm. longis, ultimis plerumque brevibus 0.5–2 cm. longis; stipulis membranaceis \pm 1 mm. longis, subtruncatis, extus breviter pilosis, \pm caducis; foliis 6–10 mm. longis, 3–5 mm. latis, rhombiformi-obovatis, apice brevissime acuminatis, acumine obtuso, basi elongatis et angustatis cuneatis, tenuiter chartaceis, supra glabris, subtus costa puberula excepta glabris, nervis lateralibus utrinsecus \pm 4 supra obscuris, subtus manifestis, venis obscuris; petiolo 1–1.5 mm. longo, sparsim pilosulo; floribus solitariis terminalibus sessilibus; ovario pubescente 1 mm. longo stipulis tecto; calycis tubo 0.5 mm. longo, glabro, lobis 1 mm. longis; corollae tubo 5 mm. longo, fauce dense piloso, lobis 2.5 mm. longis intus granulati-puberulis; staminibus inclusis; stylo 5 mm. longo, stigmatibus exsertis; fructibus (calyce incluso) 6 mm. longis, 3 mm. latis, obovoideis, levibus.

BRITISH NEW GUINEA: East Mount Tafa, *Brass 4133* (TYPE), May, 1933, alt. 2100 m., common in foothill forest (small compact shrub usually under 1 m. tall; flowers white; fruit smooth, orange-yellow).

The species seems to lie between *Amaracarpus montanus* Val. and *A. cuneifolius* Val. It differs from *A. montanus* Val. in being less hairy, the leaves have shorter petioles and are pubescent along the midrib beneath, and the drupe is obovoid rather than subglobose. It may be distinguished from *A. cuneifolius* Val. by its short branchlets, the stipules are slightly more than half as large as in the latter species and lack the hairy filiform tips characteristic of *A. cuneifolius* Val., and the corolla is more infundibular than hypocrateriform. However, the types of the two should be compared.

Amaracarpus idenburgensis sp. nov.

Arbuscula 2–3 m. alta; ramis ramulisque dense patienti-pubescentibus.

ramulis longitudine diversis 1.5–12 cm. longis, ultimis brevibus; stipulis \pm 1.5 mm. longis, in vaginam tubulatam connatis, truncatis, pubescentibus, membranaceis, caducis; foliis 6–10 mm. longis, 4–6 mm. latis, ovatis, apice obtusiusculus, basi cuneatis, valde chartaceis (crassiusculus), supra glabris, subtus costa puberula novellis puberulis, nervis lateralibus utrinsecus 2–4 utrinque subobscuris vel tantum leviter manifestis; petiolo circiter 1.5 mm. longo, dorso pubescente; floribus apice ramulorum ultimorum 2–5 dispositis, \pm 2 mm. pedicellatis, basi minute bracteolatis, glabris; calyce 1 mm. longo, fere basi 4-fido, lobis ovatis obtusis; corolla campanulata, tubo 1 mm. longo, lobis triangularibus obtusiusculus, 1.5–2 mm. longis; staminibus in fauce insertis, antheris exsertis; stylo = 1 mm. longo; disco prominente; fructu ovoideo, 7 mm. longo; pyrenis 6 mm. longis, 4.5 mm. latis, dorso convexis, ventre subplanis.

NETHERLANDS NEW GUINEA: 18 km. southwest of Bernhard Camp, Idenburg River, *Brass 12674* (TYPE), Feb., 1939, alt. 2150 m., mossy forest, one of the few undergrowth trees found amongst scrambling bamboo (2–3 m. high; branches horizontal; flowers white; fruit yellow).

This plant seems most like *Amaracarpus montanus* Val. It differs in the larger and not entirely glabrous leaves, the shorter petioles, and the very short spreading hairs on the branchlets.

Amaracarpus belensis sp. nov.

Arbor 3–4 m. alta; ramis ramulisque dense \pm adpresse rufo-pubescentibus, ramulis 10–14 cm. longis vel versus apicem 1–4 cm. longis, internodiis \pm 1 cm. longis, ramulis ultimis brevissimis plerumque minus quam 1 cm. longis; stipulis 1.5 mm. longis, pubescentibus, in vaginam tubulatam subtruncatam connatis, apice setis 4 pubescentibus; foliis 6–9 mm. longis, 2.5–4 mm. latis, ellipticis vel subrhombiformi-ellipticis, apice obtusis, basi anguste cuneatis, tenuiter chartaceis, supra glabris, subtus praesertim deorsum costa puberula ceterum glabris, nervis lateralibus utrinsecus 2 vel 3 inconspicuis vel subobscuris; petiolo 1–1.5 mm. longo; floribus solitariis in apice ramulorum ultimorum sessilibus vel subsessilibus; calyce cupuliformi 4-dentato, \pm 1.5 mm. longo; corollae tubo 2.5 mm. longo, intus glabro, lobis 1 mm. longis, reflexis; antheris parvis, leviter exsertis; fructibus oblongis, (calyce incluso) 5 mm. longis, 3 mm. diametro, levibus.

NETHERLANDS NEW GUINEA: Bele River, 18 km. northeast of Lake Habbema, *Brass 11055* (TYPE), Nov., 1938, alt. 2300 m., common in forest undergrowth (tree 3–4 m. high; branches spreading horizontally and drooping; flowers white; fruit green).

This plant seems most like the description of *A. anomalus* Wernham, but it is a small tree rather than a subrepent shrub, and the flowers are only about one-third as large as in Wernham's species.

Amaracarpus simulans sp. nov.

Arbuscula 2–4 m. alta; ramulis dense hirtello-pubescentibus, 3–10 cm. longis, ultimis brevioribus, internodiis vix 1 cm., in ramulis ultimis vix 5 mm. longis, nodis plerumque quam ramulis latioribus; stipulis 1 mm. longis, in vaginam tubulatam connatis, apice truncatis, deciduis, novellis apice minute 4-setosis, sparsim puberulis; foliis ellipticis vel rhomboideis, 4–8 mm. longis, 2.5–5 mm. latis, obtusis, basi cuneatis, utrinque glabris, nervis lateralibus utrinsecus circiter 3, supra obscuris, subtus sub lente tantum leviter manifestis; petiolo circiter 1.5 mm. longo, glabro; floribus

solitariis in apice ramulorum terminalibus, sessilibus, glabris, parvis; calycis tubo 1 mm. longo, lobis 1.5 mm. longis, lineari-oblongis; corollae tubo 2.5 mm. longo, fauce inter stamina minute piloso-barbato, lobis 1.5 mm. longis; antheris partim exsertis; stylo 2 mm. longo; fructibus ellipsoideis vel paulo obovoideis, 7 mm. longis (calyce incluso), 4 mm. diametro, 6-lineatis, vix costatis; pyrenis dorso rotundatis vel convexis, ventre undulatis.

NETHERLANDS NEW GUINEA: 9 km. northeast of Lake Habbema, *Brass 10522* (TYPE), Oct., 1938, alt. 2800 m., common in tall mossy forest of valley bottoms (undergrowth tree 2-4 m. tall; branches flat-spreading; flowers yellow).

If we had not had at hand a specimen of *A. novo-guineensis* (Warb.) Val., we might have been inclined to assign this specimen to that species, in spite of the vast difference in the altitude; however, although the leaves are much alike, the shape of the fruit is different and the calyx is much larger in our species.

Amaracarpus Brassii sp. nov.

Arbor 3-4 m. alta; ramis 4-5 mm. diametro; ramulis 1-1.5 mm. diametro, ultimis vix 0.5 mm. diametro, plerumque brevibus, subadpresso pubescentibus, pilis rufis; stipulis 1 mm. longis, membranaceis, extus pubescentibus, in vaginam connatis, apice subtruncatis setis pilosis terminatis, caducis; foliis dense confertis apice ramulorum subrosulatis, late ovatis vel subreniformibus, apice obtusis vel interdum subtundatis, basi subcordatis vel emarginatis vel subtruncatis, 1-2 mm. longis, 1.5-2.8 mm. latis, crassiusculis, utrinque glabris, costa tantum visa, supra plerumque subobscura, subtus deorsum manifesta; petiolo gracili, circiter 0.5-0.8 mm. longo; floribus solitariis in apice ramulorum brevium, sessilibus; calyce campanulato, vix 1 mm. longo, 4-5-dentato, ciliato; corollae tubo 2 mm. longo, glabro, lobis 4 vel 5, recurvatis, apiculatis, 0.6-0.8 mm. longis, antheris ellipticis, leviter exsertis; disco valde convexo; stylo 0.8 mm. longo; stigmatibus 2 brevissimis; fructibus ovoideis vel subglobosis calycis lobis coronatis, 3-4 mm. longis, circiter 3 mm. latis, in sicco nigris.

NETHERLANDS NEW GUINEA: 9 km. northeast of Lake Habbema, *Brass 10823* (TYPE), Oct., 1938, alt. 2700 m., rain-forest of valley bottom, occasional in openings (tree 3-4 m. high; branches horizontal, drooping).

This species is very readily distinguished by the crowded unusually small leaves and short branchlets.

Amaracarpus trichanthus sp. nov.

Frutex usque ad 2 m. altus; ramis ramulisque dense pilosulis vel subvillosulis, ramulis ultimis brevibus, internodiis brevissimis; stipulis ovatis vel subtundatis, 1-2 mm. longis latisque, extus pubescentibus deinde giabratibus, subpersistentibus; foliis confertis, chartaceis, 4-6.5 mm. longis, 2-3.5 mm. latis, ellipticis vel leviter obovato-ellipticis, apice paulo angustatis et obtusis vel rotundatis, basi anguste cuneatis vel acutis, utrinque glabris, nervis lateralibus utrinsecus circiter 2 obscuris vel vix manifestis; petiolo 1 mm. longo, glabro; floribus solitariis in ramulorum brevium terminalibus, sessilibus basi bracteis 2 parvis suffultis; ovario et calyce consperse pilosulo; ovario circiter 1 mm. longo; calycis tubo vix 1 mm. longo, lobis 5 oblongis, acutiusculis, sinibus rotundatis; corolla extus dense pubescente, tubo 13 mm. longo, intus prope medio annulo vix 2 mm.

lato pilosulo, sursum minutissime granulati, lobis 2 mm. longis; staminibus in fauce inferiore insertis, filamentis 1.5 mm. longis, antheris 2 mm. longis, linearibus; stylo glabro; fructibus ovoideis calyce coronatis, 5-6 mm. longis, 3.5 mm. diametro.

BRITISH NEW GUINEA: Murray Pass, Wharton Range, *Brass 4615* (TYPE), July, 1933, alt. 2840 m., abundant in undergrowth in forest (horizontally branched shrub or bush up to 2 m. tall; indumentum dark brown; flowers solitary, corolla pale blue).

Amaracarpus bicolor sp. nov.

Frutex usque ad 1 m. altus, glaber; ramulis brunnescentibus, gracilibus, angulatis vel angustissime alatis, internodiis ultimis brevissimis, nodis paulo tumidis; stipulis membranaceis, 1 mm. longis, apice truncatis, deciduis; foliis chartaceis vel tenuiter coriaceis, confertis, spathulatis, 4-8 mm. longis, in parte superiore 2.4-3.5 mm. latis, apice rotundatis, basi in petiolo 1-1.5 mm. longo angustatis, nervis lateralibus utrinsecus 2 vel 3 patenti-ascendentibus, supra obscuris, subtus inconspicuis, venis utrinque obscuris; floribus solitariis, in apice ramulorum ultimorum dispositis, sessilibus; calycis tubo 1 mm. longo, lobis 1.5 mm. longis, oblongis, obtusiusculis, sinibus subrotundatis; corollae tubo 1.2 cm. longo, intus dimidio supero \pm pilosulo, lobis 4 mm. longis; staminibus in tertio supero insertis, filamentis brevibus granuloso-puberulis, antheris 2-2.5 mm. longis; stylo 8 mm. longo, in parte supero puberulo, stigmatibus linearibus 1.5 mm. longis; fructibus ellipsoideis, circiter 7 mm. longis, calyce coronatis, levibus.

BRITISH NEW GUINEA: Mount Tafa, *Brass 4019, 5019* (TYPE), May, Sept., 1933, alt. 2310 and 2400 m., fairly common along roadside; also, small undergrowth shrub in damp valley forest (shrub or bush 1 m. or less; branches horizontal; fleshy blue flowers, lobes yellow-tipped).

The flowers of the first collection are not yet open and are described by the collector as blue-green.

Amaracarpus buxifolius (C. H. Wright) comb. nov.

Saprosma buxifolia C. H. Wright, Kew Bull. 1899: 101. 1899.

BRITISH NEW GUINEA: Murray Pass, Wharton Range, *Brass 4766*, Aug., 1933, alt. 2840 m., common as undergrowth in better lighted situations in forests (bush about 2 m. tall; flowers blue); Mt. Albert Edward, southwest slope (Upper Chirima River), *Brass 4379*, June, 1933, alt. 3500 m., a single plant on rocky bank of river (compact low shrub; leaves shining on both sides, the under surface much paler; corolla pale blue with green thick-tipped lobes; fruit compressed, orange-yellow, \pm 1 cm. long).

Amaracarpus confertifolius sp. nov.

Frutex gracilis 1-2 m. altus, glaber; ramis teretibus, ramulis quadrangulatis, plerumque brevibus, internodiis 5-7 mm. longis; stipulis in vaginam connatis, circiter 2 mm. longis, rotundatis vel late obtusis, caducis; nodis tumidis; foliis 6-11 mm. longis, 4-7 mm. latis, ellipticis vel leviter obovatis, apice obtusis vel subrotundatis, basi anguste cuneatis, in sicco margine paulo recurvis, nervis lateralibus utrinsecus 3 vel 4, in laminae facie supera \pm manifestis, infra deorsum magis prominulis, venulis utrinque \pm manifestis; floribus solitariis in ramulis brevibus terminalibus, subsessilibus (pedunculo \pm 1 mm. longo), bracteolatis; bracteolis \pm 3 mm. longis, basi ovatis deinde abrupte longe acuminatis, ut videtur \pm connatis, ovario circumdati; calycis tubo 1 mm. longo, lobis 2-2.5 mm. longis, sinibus \pm rotundatis; corolla infundibulari, tubo 10-12 mm. longo, intus

prope medio sursum \pm puberulo, lobis 3 mm. longis; antheris 2.5 mm. longis, partim exsertis; stylo brevi, stigmatibus lineari-oblongis; fructibus ovoideis, 7 mm. longis (calyce incluso), 3.5 mm. latis, levibus; pyrenis dorso convexis, ventre planis.

BRITISH NEW GUINEA: Murray Pass, Wharton Range, *Brass* 4715 (TYPE), Aug., 1933, alt. 2840 m., common on pathways through bamboo undergrowth in *Dacrydium-Libocedrus* forests (slender shrub 1-2 m. high, with short horizontal branches; flowers pale blue, fleshy).

This plant is more compact than *A. caeruleus* Merr. & Perry but the flowers are somewhat similar, except that the subtending bracteoles differ, and the flowers of the latter species are definitely pedunculate, the fruit of the latter, too, tends to be ribbed, and the leaves are larger and longer-petiolate. In addition to the number above cited we have at hand a single sheet from East Mount Tafa, *Brass* 4144, gathered at 2100 m. altitude in the tall foothill forest, not common (compact shrub with blue flowers). This number has slightly larger leaves than those of the type, and chartaceous: the one flower on the specimen has the corolla-tube within from the middle upward densely puberulous. These are the only differences we note, except possibly the stipules are slightly puberulous; we are inclined to believe all represent one species under different environmental conditions.

Amaracarpus caeruleus sp. nov.

Arbuscula 2-3 m. alta, glabra; ramulis 4-angulatis, nodis tumidis, internodiis ramulorum ultimorum brevibus, 3-10 mm. longis; stipulis 1-3 mm. longis, obtusis, cito caducis; foliis 1-2 cm. longis, 0.5-1.1 cm. latis, ellipticis vel lanceolatis, apice obtusiusculis vel acutiusculis, basi cuneatis vel acutis, tenuiter coriaceis, nervis lateralibus utrinsecus 2 vel 3 adscendentibus vel patenti-adscendentibus utrinque manifestis vix prominulis, reticula \pm manifesto, laxo; petiolo 3-4 mm. longo; floribus solitariis ut videtur terminalibus et axillaribus, pedunculatis; pedunculo \pm 5 mm. longo; ovario circiter 1 mm. longo bracteolis circumdata; bracteolis 4 decussatis, approximatis, longitudine variabilibus, 2.5-5 mm. longis, ovatis vel lanceolatis, apice elongatis; calycis tubo 1 mm. longo, lobis 1.5-2 mm. longis, lineari-oblongis, acutiusculis; corolla infundibulari, tubo 12 mm. longo, intus medio puberulo sursum granuloso-puberulo, lobis 3 mm. longis, intus granuloso-puberulis; filamentis granuloso-puberulis, antheris 3 mm. longis, lineari-oblongis, basi bilobatis; stylo glabro, stigmatibus linearibus; fructibus ovoideis, (calyce incluso) 7 mm. longis, 3.5 mm. diametro; pyrenis 5 mm. longis, 3 mm. latis, dorso convexis leviter et obtuse 3-costatis, ventre planis.

BRITISH NEW GUINEA: Murray Pass, Wharton Range, *Brass* 4525 (TYPE), July, 1933, alt. 2840 m., common on forest borders (dark foliaged shapely small tree 2-3 m. tall; corolla pale blue with thick-tipped lobes; ripe fruit yellow, about 5 mm. long, 4 mm. diameter).

Amaracarpus Clemensae sp. nov.

Frutex probabiliter 1-2 m. altus; ramulis dense crispe pubescentibus, deinde glabris, \pm angulatis, internodiis ultimis brevibus; stipulis glabris membranaceis, 3-4 mm. longis, in parte inferiore in vaginam connatis, apice subrotundatis, caducis, cicatricibus pilosis; foliis lanceolatis vel

anguste ellipticis, 1–2 cm. longis, 0.4–0.7 cm. latis, apice acutiusculis, basi anguste cuneatis, tenuiter coriaceis, in sicco margine leviter recurvis, utrinque glabris, nervis lateralibus utrinsecus circiter 4 ascendentibus, supra obscuris, subtus sub lente distincte manifestis, venulis obscuris; petiolo \pm 3 mm. longo, glabro; floribus glabris solitariis subterminalibus pedunculatis, bracteolatis; pedunculo 7–11 mm. longo, glabro; bracteolis 4 calycis basi approximatis, persistentibus, paribus decussatis, 7–10 mm. longis, 1–1.5 mm. latis, lineari-oblongis, acutiusculis; ovario et calyce campanulatis; calycis tubo 1.5–2 mm. longo, lobis 1–1.5 mm. longis, lobis et sinibus subrotundatis; corollae tubo 11 mm. longo, intus dimidio supero granuloso-puberulo, lobis circiter 3 mm. longis; filamentis 1 mm. longis, granuloso-puberulis, antheris 3 mm. longis, partim exsertis; stylo 9 mm. longo, stigmatibus 2 mm. longis; fructibus \pm 6 mm. longis, oblongis, calyce coronatis, bracteolis suffultis; pyrenis dorso convexis levibus, ventre planis.

NORTHEAST NEW GUINEA: Rawlinson Range, *Clemens 12328* (TYPE), June, 1941, alt. 2100–3600 m. (shrub; fruits tomato-red); same locality, *Clemens 41405, 41943*, May, 1940, June, 1941 (shrub 1–1.5 m. tall; flowers white); Ulap Trail, *Clemens 41168*, April, 1940, alpine or subalpine elevation; Sarawaket, *Clemens 5573*, June, 1937, alt. 2400–2700 m.

Amaracarpus Archboldianus sp. nov.

Arbuscula vel frutex; ramulis glabris cortice longitudinaliter rugulosis, nigrescentibus vel cinereo-nigrescentibus; stipulis oblongis, obtusis, circiter 7 mm. longis, cito caducis, cicatricibus pilosis; foliis 1.5–4 (plerumque 2.5–3) cm. longis, 0.8–2.3 (plerumque 1.2–1.8) cm. latis, ellipticis vel lanceolato-ellipticis, brevissime acuminatis (acumine 2 mm. longo, obtuso) vel acutiusculis, basi cuneatis vel rotundatis deinde breviter cuneatis, in sicco margine leviter recurvis, tenuiter coriaceis, supra glabris, subtus costa praesertim deorsum patenti-pubescente excepta glabris, nervis lateralibus utrinsecus 6 vel 7 supra manifestis, subtus prominulis, oblique patentibus ante marginem abrupte confluentibus, reticulo utrinque distincte manifesto, laxo; petiolo 8–10 mm. longo, novello subtus pubescente, glabrato; floribus glabris, ebracteolatis, subterminalibus, interdum solitariis plerumque 2(–3)-fasciculatis, pedunculatis, pedunculo interdum sparsim pubescente, 1–1.5 cm. longo; calycis tubo campanulato-cupuliformi, 3 mm. longo, lobis 2 mm. longis, oblongis, obtusis, sinibus obtusis vel subrotundatis; corolla infundibulari, tubo 1.5–1.7 cm. longo, intus dimidio supero granuloso-puberulo, lobis 4 mm. longis; filamentis brevibus, granuloso-puberulis, antheris 3 mm. longis, vix exsertis; stylo 1.1 cm. longo; stigmatibus linearibus; fructibus immaturis, oblongis, 1.1 cm. longis (calyce incluso).

BRITISH NEW GUINEA: Murray Pass, Wharton Range, *Brass 4614* (TYPE), July, 1933, alt. 2840 m., very common substage bush or small tree (dark smooth leaves, paler and glossy beneath; flowers in axillary pairs, one maturing long before the other; corolla-tube yellowish, lobes puce-colored and very thick).

Very closely related and perhaps representing the same species is the following collection: Mt. Albert Edward, southwest slope (Upper Chirima River), *Brass 4373*, June, 1933, alt. 3500–3550 m., common as undergrowth in valley forests (small spreading tree or bush 1–2.5 m. tall; leaves very dark and glossy above, midrib whitish; corolla fleshy, greenish white with lavender-colored lobes).

This latter specimen differs from the type as follows: the branchlets are crisply pilose on the younger parts, the older are glabrous, the bark is gray.

the leaves are narrower, at most 1.5 cm. broad, and more sharply pointed, the costal veins are more prominent than the reticulations, and in the axils of the primary veins of the lower half of the leaves are minute domatia. The flowers vary greatly in size, but the largest ones could not be distinguished from those in the type-collection. The mode of inflorescence is similar; the fact that the inflorescence is found at the terminal node or the second from the apex leads us to believe this position may be indicative of a sympodial growth of the stem.

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